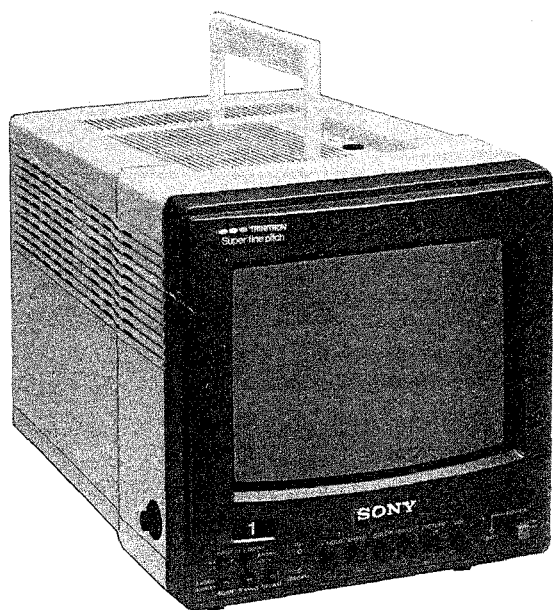


SONY®

TRINITRON® COLOR VIDEO MONITOR

BVM-9021ME



OPERATION AND MAINTENANCE MANUAL
1st Edition

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AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISE LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

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SECTION 1

OPERATION

1-1. OUTLINE

Super Fine Pitch Trinitron picture tube

The Super Fine Pitch Trinitron picture tube gives a high resolution (400 TV lines), high contrast picture.

Colorpure Filter

The colorpure filter increases the resolution and results in fine picture detail without color spill or color noise.

PAL/SECAM broadcasting standard receivable

The monitor can receive PAL and SECAM signals. The appropriate broadcasting standard is selected automatically.

Push-to-lock controls

In the locked position, the controls are protected from damage during carriage of the unit. The protruding position allows easier operation.

Monitor of sync signals

The H/V DELAY switch allows horizontal and vertical sync signals to be displayed on the screen.

Blue only picture

By using the B ONLY switch, the picture can be displayed in blue and black only, facilitating hue adjustment or observation of VTR noise.

Underscan mode

The signal normally scanned outside of the screen can be monitored in underscan mode.

6-pin DIN tuner connector

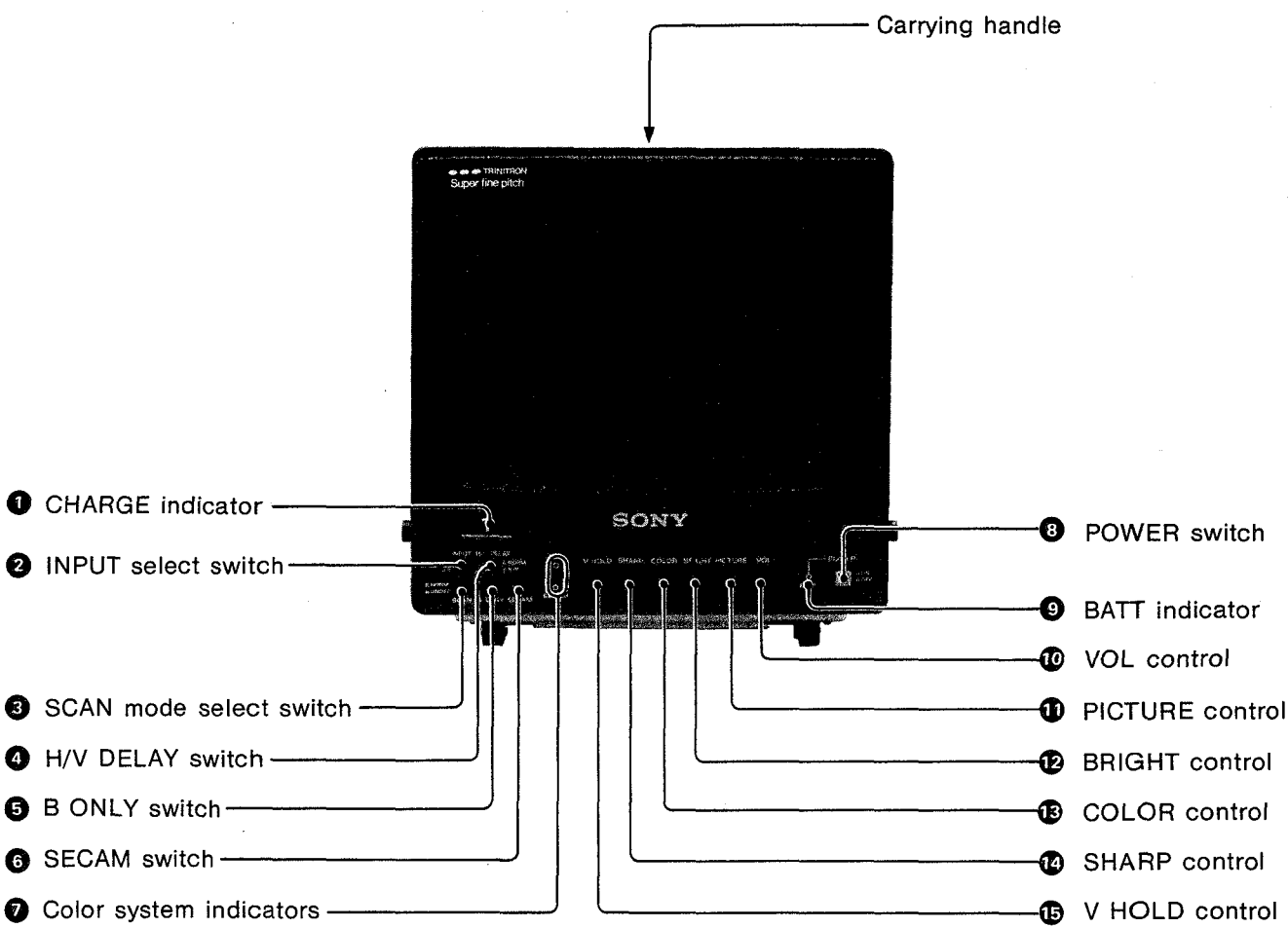
The TUNER connector allows easy connection of a TV tuner, which is equipped with the 6-pin DIN connector, using a single cable.

Three power sources

The monitor can operate on either ac power source, a rechargeable battery or a 12V car battery, allowing use indoors or outdoors. The battery charge function is incorporated.

1-2. LOCATION AND FUNCTION OF CONTROLS

1-2-1. Front Panel



1 CHARGE indicator

Lights during charging. When charging is complete, the indicator goes out.

2 INPUT select switch

Keep this switch released ($\square$ A) to monitor the signal from the INPUT A connectors. Depress the switch ($\square$ B) to monitor the signal from the INPUT B connectors.

3 SCAN mode select switch

Keep this switch released ($\square$ NORM) for normal scanning. Depress the switch ($\square$ UNDER) to reduce the display size by about 5% (underscanning mode) and to view a picture which does not appear in normal scanning.

4 H/V DELAY switch

Normally keep this switch released ($\square$ NORM). To monitor the sync signals, depress the switch ($\square$ H/V). The picture is shifted horizontally and vertically. The horizontal sync is displayed in left approximately one quarter of the screen and the vertical sync is displayed near the center of the screen.

5 B ONLY (blue only) switch

Normally keep this switch released ($\square$ NORM). Depress the switch ($\square$ BLUE) to turn off the red and green beams. The picture will be displayed in blue and black only. This facilitates hue adjustment or observation of VTR noise.

6 SECAM switch

Depress this switch when a picture from SECAM color sources is distorted. The picture will become clear.

7 Color system indicators

Indicate the color system of the input video signal: PAL or SECAM.

8 POWER switch

To turn the monitor on, depress the POWER switch ($\square$ ON). To turn it off, press the switch again ($\square$ OFF).

9 BATT (power/battery) indicator

This indicator lights when the power is turned on. When the rechargeable battery becomes weak, the indicator flashes for about five minutes. Then it goes out, and the power is automatically turned off.

10 VOL (volume) control

Turn this control clockwise or counterclockwise to obtain the desired volume.

11 PICTURE control

Adjusts the contrast, intensity and brightness simultaneously in the proper ratio.

12 BRIGHT (brightness) control

Adjusts the brightness. Normally set this control at the center detent position.

13 COLOR control

Adjusts the color intensity of the picture. Clockwise rotation makes the picture more vivid; counterclockwise rotation makes it paler.

14 SHARP (sharpness) control

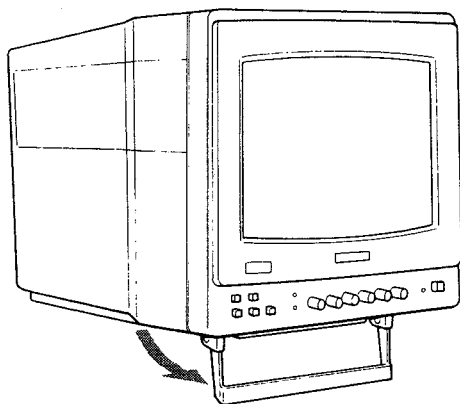
Adjusts the sharpness of the picture. Clockwise rotation makes the picture sharper; counterclockwise rotation makes it softer.

15 V HOLD (vertical hold) control

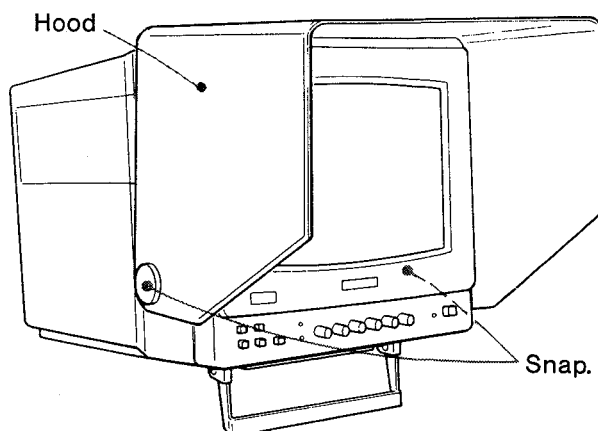
If the picture rolls vertically, correct it with this control.

Before turning one of the controls **10** to **15**, for easier operation press on it to release the control to a protruding position.

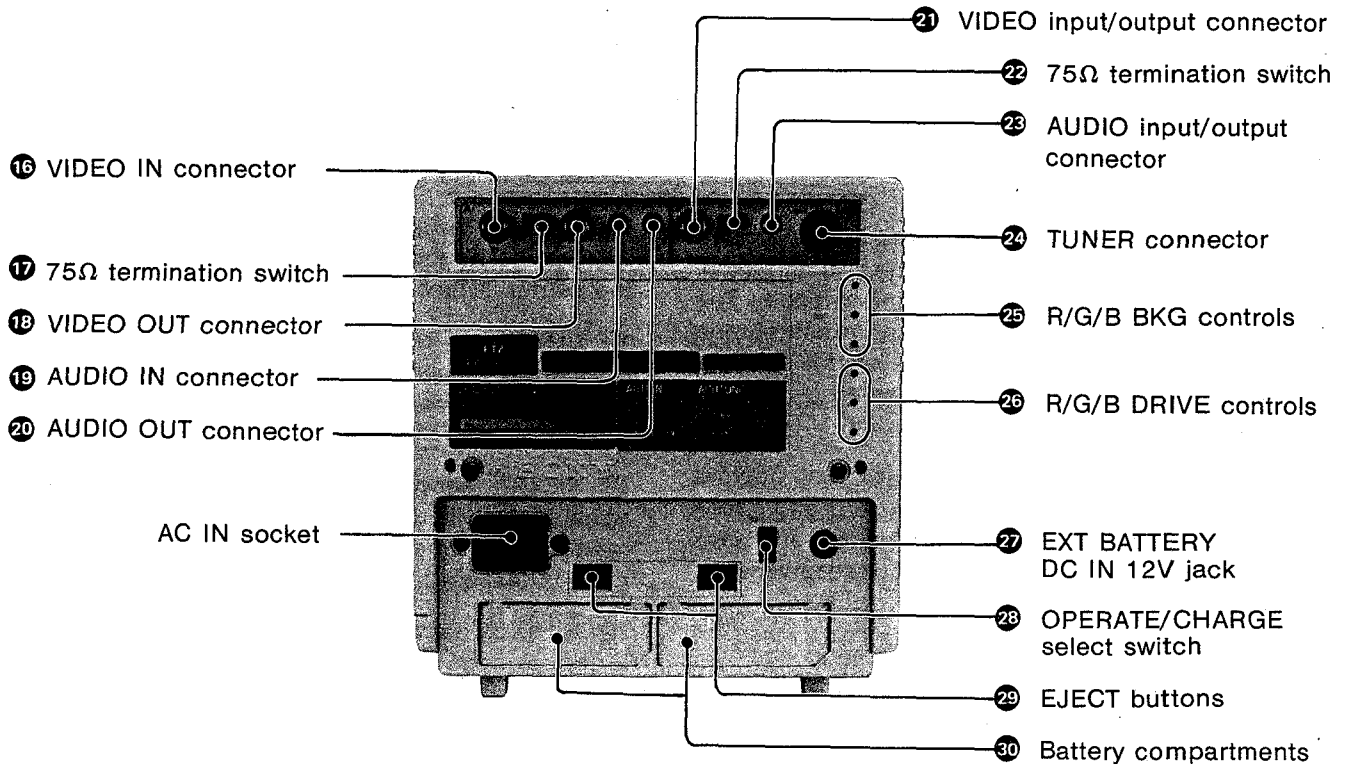
Use of the Stand



Attaching the Supplied Hood



1-2-2. Rear Panel



INPUT A (16 — 20)

To monitor the input signals connected to these connectors, keep the INPUT select switch released (A).

16 VIDEO IN connector (BNC type)

Connect to the video output of video equipment, such as a VTR or a color video camera.

17 75Ω termination switch

When only the VIDEO IN connector is used (the VIDEO OUT connector is not used), set this switch to ON. When both the VIDEO IN and VIDEO OUT connectors are used together for a loop-through connection, set the switch to OFF.

18 VIDEO OUT connector (BNC type)

Loop-through output of the VIDEO IN connector. Connect to the video input of a VTR or another monitor.

19 AUDIO IN connector (minijack)

Connect to the audio output of a VTR or to a microphone (through a suitable microphone amplifier).

20 AUDIO OUT connector (minijack)

Loop-through output of the AUDIO IN connector. Connect to the audio input of a VTR or another monitor.

INPUT B (21 — 24)

To monitor the input signals to these connectors, depress the INPUT select switch (B).

21 VIDEO input/output connector (BNC type)

Connect to the video output of a VTR or a color video camera.

When a TV tuner is connected to the TUNER connector and the 75Ω termination switch 22 is set to OFF, this connector can be used as a loop-through output of the TUNER connector. Connect to the video input of a VTR or another monitor.

22 75Ω termination switch

Normally set this switch to ON. When both the TUNER and VIDEO connectors are used together for a loop-through connection, set the switch to OFF.

23 AUDIO input/output connector (minijack)

Connect to the audio output of a VTR or to a microphone (through a suitable microphone amplifier). When a TV tuner is connected to the TUNER connector and the 75Ω termination switch 22 is set to OFF, this connector can be used as a loop-through output of the TUNER connector. Connect to the audio input of a VTR or another monitor.

24 TUNER connector (6-pin DIN)

Connect to the 6-pin DIN connector of a TV tuner. The video and audio signals are supplied to the monitor and the power from the monitor is fed to the tuner using a single cable.

Note

The TUNER input and the VIDEO/AUDIO inputs 21 , 23 cannot be used simultaneously. When connecting a TV tuner to the monitor, be sure to disconnect any input source equipment from the VIDEO and AUDIO connectors, or vice versa.

25 R/G/B BKG (background) controls

Used for adjusting the white balance of the background.

26 R/G/B DRIVE controls

Used for adjusting the white balance at the white peak.

27 EXT BATTERY (external battery) DC IN 12V jack

Connect the optional DCC-16AE car battery cord.

28 OPERATE/CHARGE select switch

Normally set this switch to OPERATE. To charge the battery pack, set to CHARGE. The CHARGE indicator on the front panel lights. When charging is complete, the CHARGE indicator goes out; reset the switch to OPERATE.

29 EJECT buttons

Press the EJECT button upwards to remove the battery pack.

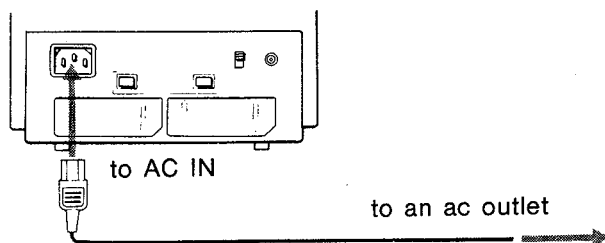
30 Battery compartments

Insert the NP-1 battery pack.

1-3. POWER SOURCES

1-3-1. AC Power

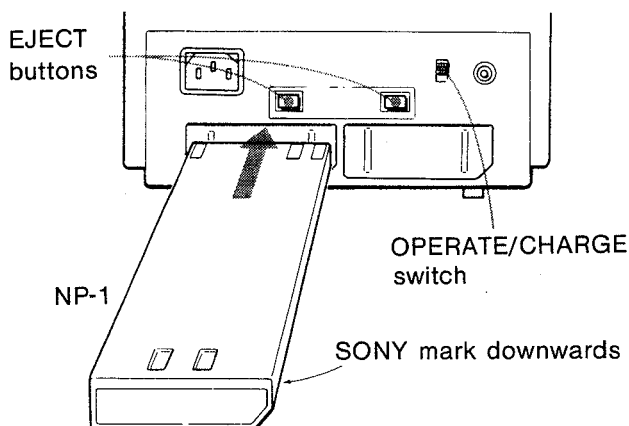
Connect the supplied ac power cord to the AC IN socket and to an ac outlet.



When the ac power cord is plugged into the AC IN socket, the battery pack (if installed) or the car battery (if connected) is automatically disconnected.

1-3-2. Rechargeable Battery

Insert the Sony NP-1 battery pack (optional) into the battery compartment as illustrated. The monitor can operate with one or two battery packs. For extended use, two battery packs are recommended.



To remove the battery pack, press the EJECT button upwards.

Note

Make sure that the ac power cord and the car battery cord are disconnected from the monitor. Otherwise, the monitor cannot operate on the battery pack(s).

Charging the battery pack

Before using the monitor, be sure to fully charge the battery pack. The charging time is about 6 hours at normal temperatures.

- 1 Connect the supplied ac power cord to the AC IN socket and then to an ac outlet.
- 2 Insert the battery pack(s) into the battery compartment(s).
- 3 Set the OPERATE/CHARGE switch to CHARGE.
- 4 Depress the POWER switch. The CHARGE indicator lights and charging begins.

When charging is complete, the CHARGE indicator goes out. Be sure to reset the OPERATE/CHARGE switch to OPERATE.

When the OPERATE/CHARGE switch is set to CHARGE, the picture cannot be monitored.

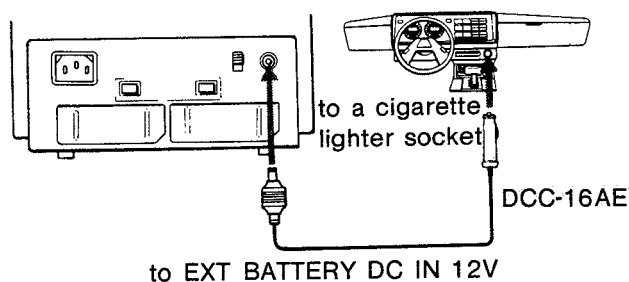
- For quicker charging, use the optional BC-1WA battery charger for NP-1.

Battery life

At normal temperatures, the picture can be monitored continuously for about 60 minutes using two battery packs and operating the TV tuner connected to the monitor. When the TV tuner is not used, longer battery life can be expected (about 75 to 80 minutes). When the battery is exhausted, the green BATT indicator flashes for about five minutes, and then the power is turned off automatically to prevent excessive battery discharge. When the BATT indicator goes off, press the POWER switch and replace the exhausted battery pack(s) with fully charged one(s), or use another power source.

1-3-3. Car Battery

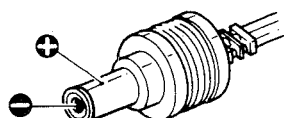
Use the Sony DCC-16AE car battery cord (optional) for a 12V car battery. Connect the car battery cord to the EXT BATTERY DC IN 12V jack and to the cigarette lighter socket of a car. For further details, read the instruction manual of the car battery cord.



When the car battery cord is plugged into the EXT BATTERY DC IN 12V jack, the battery pack (if installed) is disconnected automatically.

Note

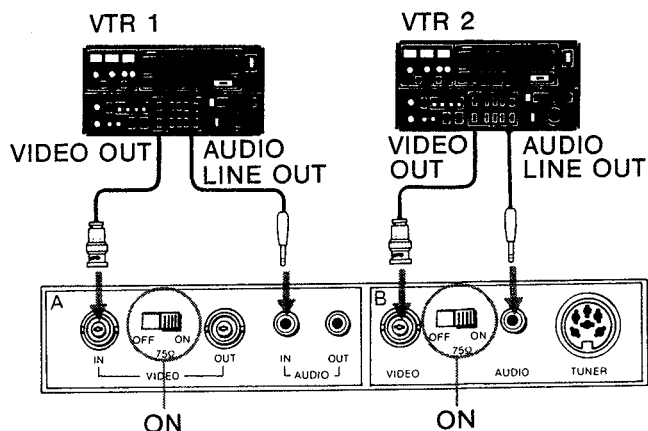
If a car battery cord not manufactured by Sony is used, a fuse must be installed in the car battery cord and the polarity of the plug must be as illustrated.



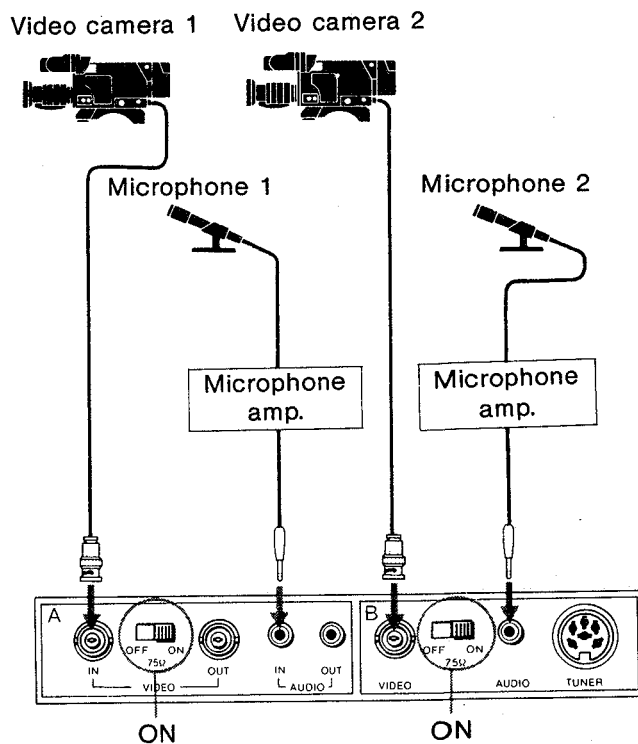
Polarity of the plug of Sony car battery cord

1-4. SYSTEM CONNECTIONS

1-4-1. Connecting a VTR

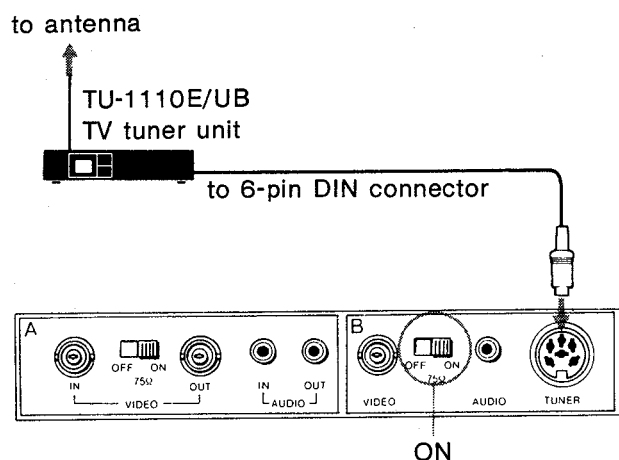


1-4-2. Connecting a Camera and a Microphone



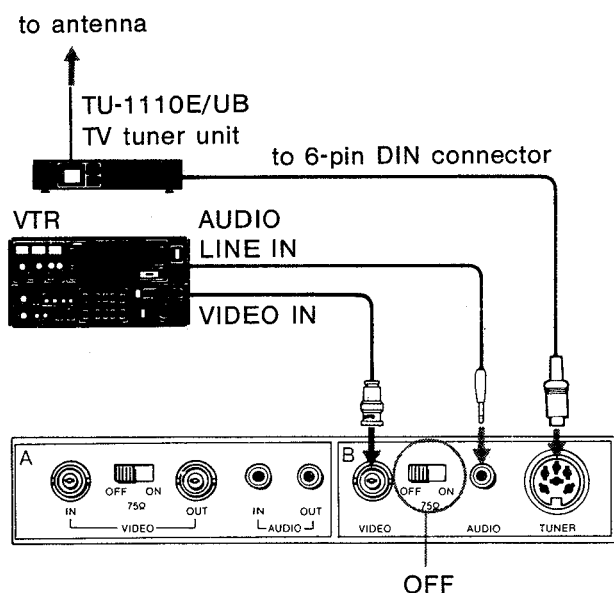
1-4-3. Connecting a TV Tuner

The Sony TU-1110E/UB TV tuner unit, which is equipped with a 6-pin DIN connector, can be connected to the monitor.



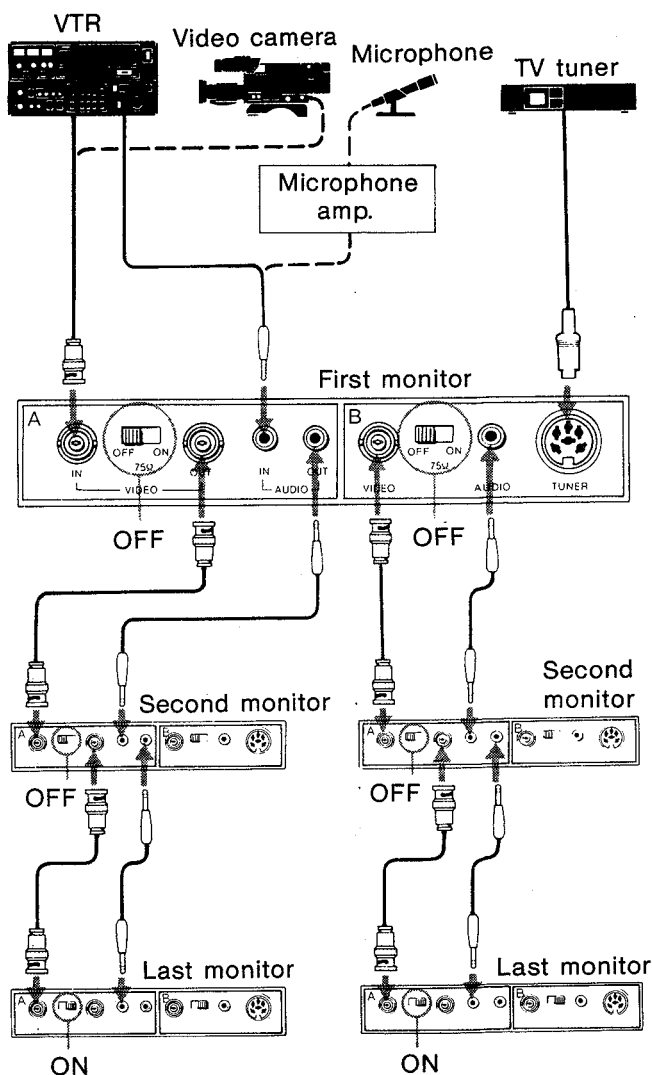
1-4-4. Connecting a TV Tuner and a VTR

The VIDEO and AUDIO connectors of INPUT B can be used as loop-through outputs of the TUNER connector. By making the following connection, TV programs received by the TV tuner can be recorded on a VTR while monitoring the picture.



1-4-5. Connecting Several Monitors

The loop-through connection is convenient for monitoring the same signal on several monitors. Use the VIDEO OUT and AUDIO OUT connectors of INPUT A, and for the TV tuner, use the VIDEO and AUDIO connectors of INPUT B. Up to 10 monitors can be connected for each group. Set the 75Ω termination switch of the last monitor to ON and those of the other monitors to OFF.

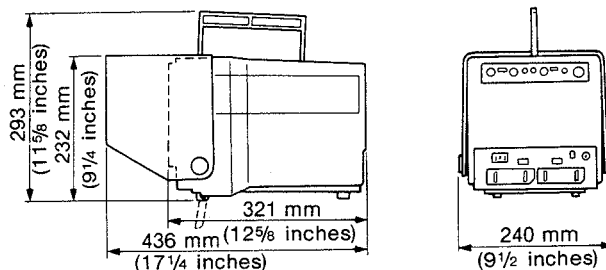


1-5. SPECIFICATIONS

Color system	PAL and SECAM systems, switched automatically
Picture tube	Super Fine Pitch Trinitron tube Approx. 195 mm (9 inches) (Approx. 221 mm picture measured diagonally) 70-degree deflection 400 TV lines (B/W)
Resolution	6,500°K
Color temperature	5.5 MHz (−3 dB)
Frequency response	±8%
Horizontal linearity	±8%
Vertical linearity	Horizontal ±500 Hz
Line pull range	6%
Overscan of the picture	5%
Underscan of the picture	Horizontal: Approx. 1/4 line Vertical: Approx. 1/2 field
H/V delay	5 MHz, −30 dB (INPUT A, INPUT B)
Return loss	Within 3%
Zooming	Central area 0.5 mm Periphery 0.7 mm
Convergence	More than 30 foot-lamberts
Brightness	VIDEO IN (INPUT A): BNC connector
Inputs	VIDEO (INPUT B): BNC connector Composite 1 Vp-p ±6 dB, 75 ohms, unbalanced, sync negative AUDIO IN (INPUT A): minijack AUDIO (INPUT B): minijack −5 dBs, 47 k ohms or more
Loop-through outputs	VIDEO OUT (INPUT A): BNC connector VIDEO (INPUT B): BNC connector 1 Vp-p, 75 ohms, unbalanced, sync negative AUDIO OUT (INPUT A): mini-jack AUDIO (INPUT B): minijack Output level 0.8W
TUNER connector	6-pin DIN connector Pin No.1: not in use Pin No.2: video input, composite 1 Vp-p ±6 dB, 75 ohms, unbalanced, sync negative Pin No.3: ground Pin No.4: audio input, −5dBs, 47 k ohms or more Pin No.5: power output Pin No.6: not in use

Power requirements	220/240V ac, 50/60 Hz 12V dc, with the optional Sony NP-1 battery pack or 12V car battery using the optional DCC-16AE car battery cord
Power consumption	48W ac 40W dc

Dimensions



Weight	Approx. 7.2 kg (15 lb 14 oz) not incl. accessories
Accessories supplied	AC power cord (1) Hood (1) Operation and maintenance manual (1)
Optional accessories	TV tuner unit TU-1110E/UB Battery pack NP-1 Car battery cord DCC-16AE Battery charger BC-1WA Carrying case VLC-100

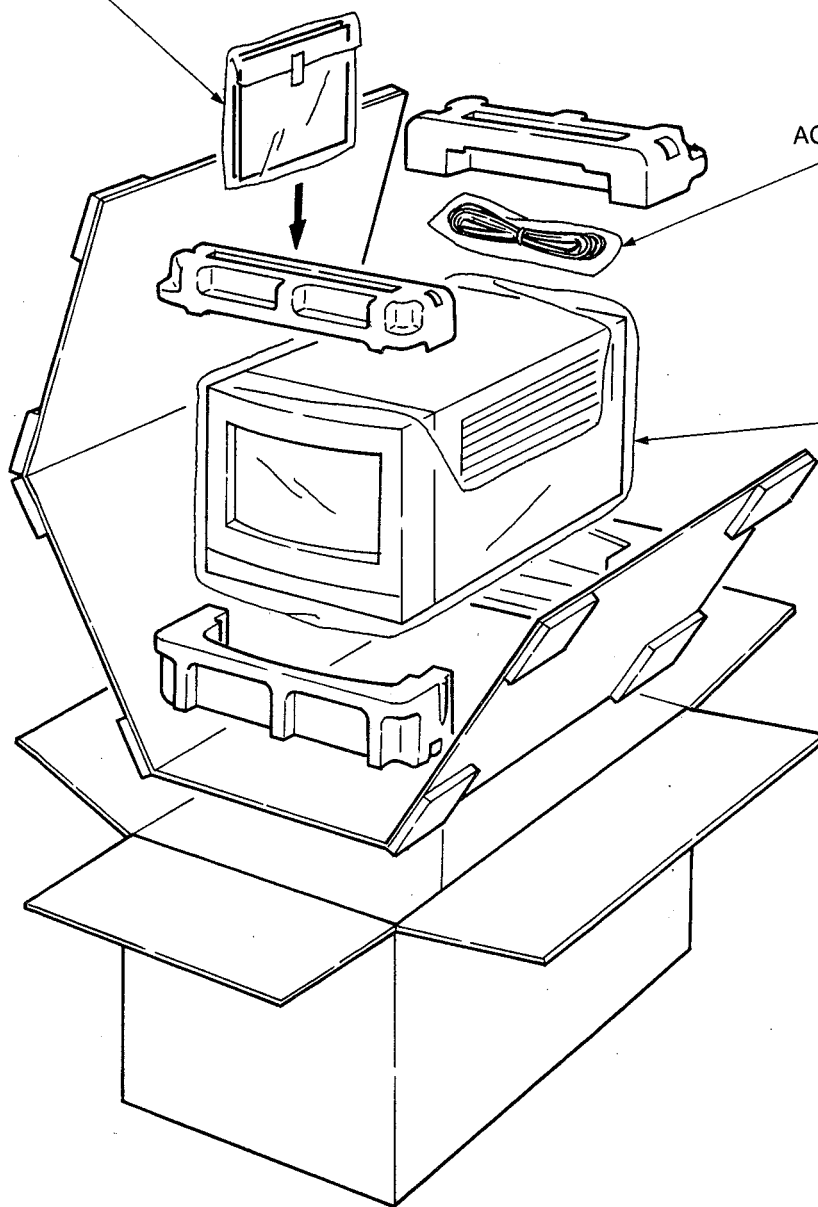
Design and specifications subject to change without notice.

1-6. PACKING

Operation and maintenance manual,
Hood

AC power cord

BVM-9021ME



SEZIONE 1

FUNZIONAMENTO

1-1. DESCRIZIONE

Cinescopio Super Fine Pitch Trinitron

Il cinescopio Super Fine Pitch Trinitron fornisce alta risoluzione (400 linee TV) e alto contrasto d'immagine.

Filtro colore puro

Il filtro colore puro aumenta la risoluzione e dà un accurato dettaglio di immagine senza sbavature di colore o disturbo di colore.

Sistemi di trasmissione PAL/SECAM ricevibili

Il monitor può ricevere segnali PAL e SECAM. Il sistema di ricezione appropriato viene scelto automaticamente.

Comandi rientranti

In posizione rientrata, i comandi sono protetti da eventuali danni durante il trasporto. In posizione estratta, consentono un più facile controllo.

Controllo dei segnali di sincronia

L'interruttore H/V DELAY permette di visualizzare sullo schermo i segnali di sincronia orizzontali e verticali.

Immagine completamente blu

L'interruttore B ONLY consente di visualizzare le immagini solo in blu e nero, facilitando quindi la regolazione delle sfumature di colore e l'osservazione di interferenze VTR.

Modo di sotto-scansione

Nel modo di sotto-scansione, è possibile visualizzare il segnale che normalmente si trova al di fuori dello schermo.

Connettore DIN a 6 spinotti per sintonizzatore

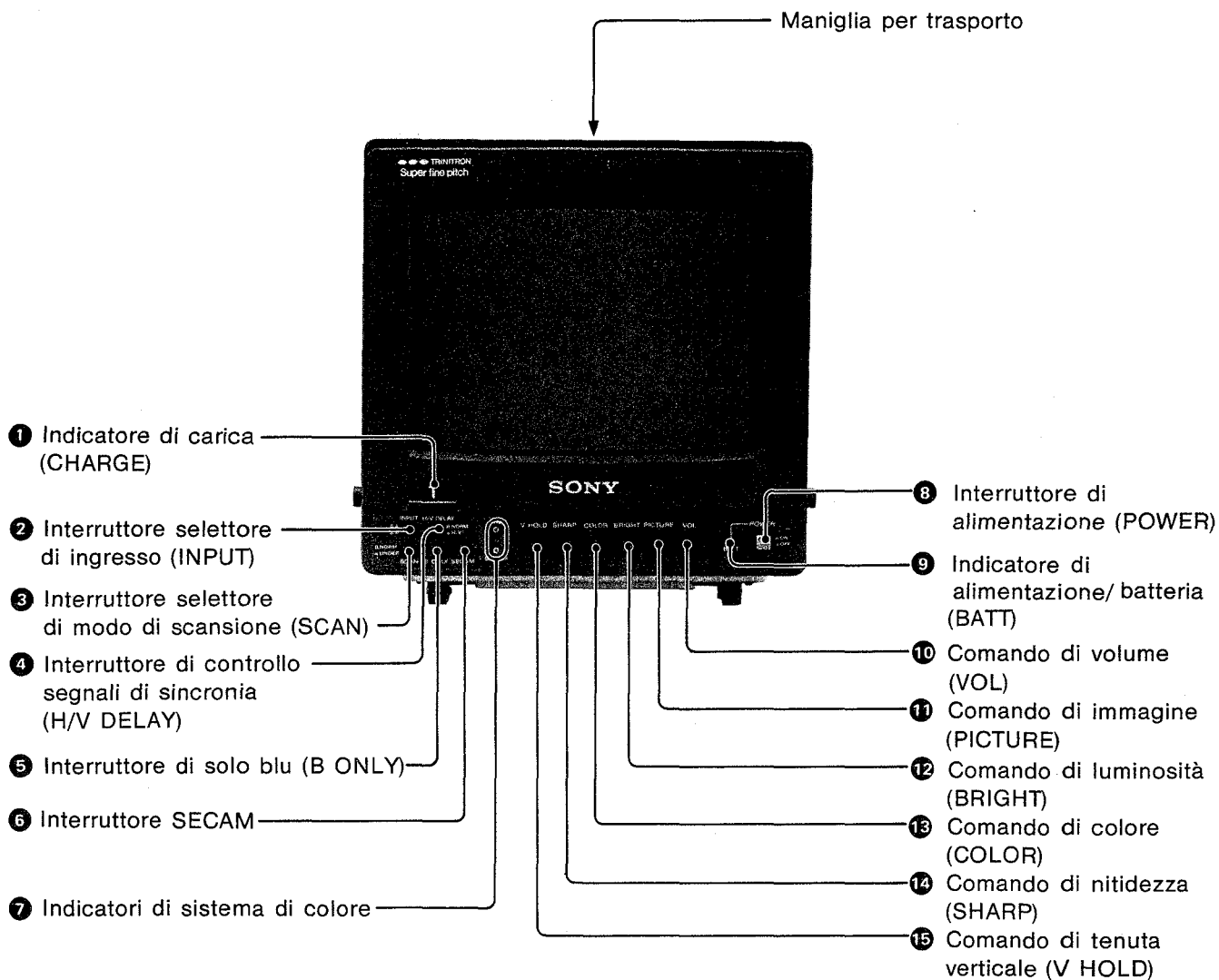
Il connettore TUNER consente un facile collegamento con un sintonizzatore TV dotato di un connettore DIN a 6 spinotti mediante un unico cavo.

Tre fonti di alimentazione

Il monitor può funzionare con una fonte di alimentazione CA, con una batteria ricaricabile o con una batteria d'auto a 12V, consentendo quindi l'uso in interni e all'esterno. La funzione di ricarica della batteria è incorporata.

1-2. POSIZIONE E FUNZIONE DEI COMANDI

1-2-1. Pannello frontale



1 Indicatore di carica (CHARGE)

Si accende durante la carica della batteria. Si spegne a carica completa.

2 Interruttore selettore di ingresso (INPUT)

Mantenete questo interruttore in posizione rilasciata ($\square$ A) per controllare il segnale proveniente dai connettori INPUT A. Premetelo ($\square$ B) per controllare il segnale proveniente dai connettori INPUT B.

3 Interruttore selettore di modo di scansione (SCAN)

Mantenete questo interruttore in posizione rilasciata ($\square$ NORM) per una normale scansione d'immagine. Premetelo ($\square$ UNDER) per ridurre il formato del quadro d'immagine di circa il 5% (modo di sotto-scansione) e per visualizzare immagini che non appaiono con la scansione normale.

4 Interruttore di controllo di segnali di sincronia (H/V DELAY)

Normalmente, mantenete questo interruttore in posizione rilasciata ($\square$ NORM). Per controllare i segnali di sincronia, premetelo ($\square$ H/V). L'immagine viene scorsa orizzontalmente e verticalmente. La sincronia orizzontale appare approssimativamente nel quarto sinistro dello schermo, mentre quella verticale appare nei pressi del centro dello schermo.

5 Interruttore di solo blu (B ONLY)

Normalmente, mantenete questo interruttore in posizione rilasciata ($\square$ NORM). Premetelo ($\square$ BLUE) per eliminare i raggi rossi e verdi. L'immagine sarà visualizzata solo in blu e nero. Ciò faciliterà la regolazione delle sfumature di colore o l'osservazione delle interferenze VTR.

6 Interruttore SECAM

Premetelo quando l'immagine trasmessa da una fonte SECAM è distorta. L'immagine risulterà più chiara.

7 Indicatori di sistema di colore

Indicano il sistema di colore del segnale video in ingresso: PAL o SECAM.

8 Interruttore di alimentazione (POWER)

Per accendere il monitor, premete l'interruttore POWER ($\square$ ON). Per spegnerlo, premete l'interruttore di nuovo ($\square$ OFF).

9 Indicatore di alimentazione/batteria (BATT)

Questo indicatore si accende quando l'apparecchio è acceso. Quando la batteria ricaricabile si sta per scaricare, l'indicatore lampeggia per circa cinque minuti e quindi si spegne. A questo punto, l'alimentazione viene automaticamente staccata.

10 Comando di volume (VOL)

Girate questo comando in senso orario o in senso antiorario per ottenere il volume desiderato.

11 Comando di immagine (PICTURE)

Regola contemporaneamente il contrasto, l'intensità e la luminosità nel giusto rapporto.

12 Comando di luminosità (BRIGHT)

Regola la luminosità. Normalmente, regolate questo comando sullo scatto centrale.

13 Comando di colore (COLOR)

Regola l'intensità del colore dell'immagine. Giratelo in senso orario per ottenere immagini più vivide e in senso antiorario per immagini più smorzate.

14 Comando di nitidezza (SHARP)

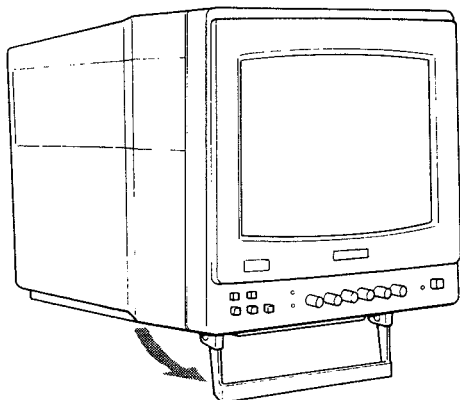
Regola la nitidezza dell'immagine. Giratelo in senso orario per ottenere immagini più nitide e in senso antiorario per immagini più sfocate.

15 Comando di tenuta verticale (V HOLD)

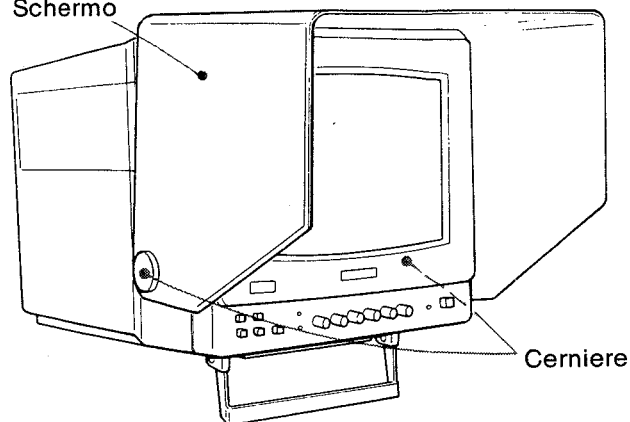
Se l'immagine scorre verticalmente, correggetela con questo comando.

Prima di usare i comandi da 10 a 15, premeteli per estrarli e maneggiarli con maggior facilità.

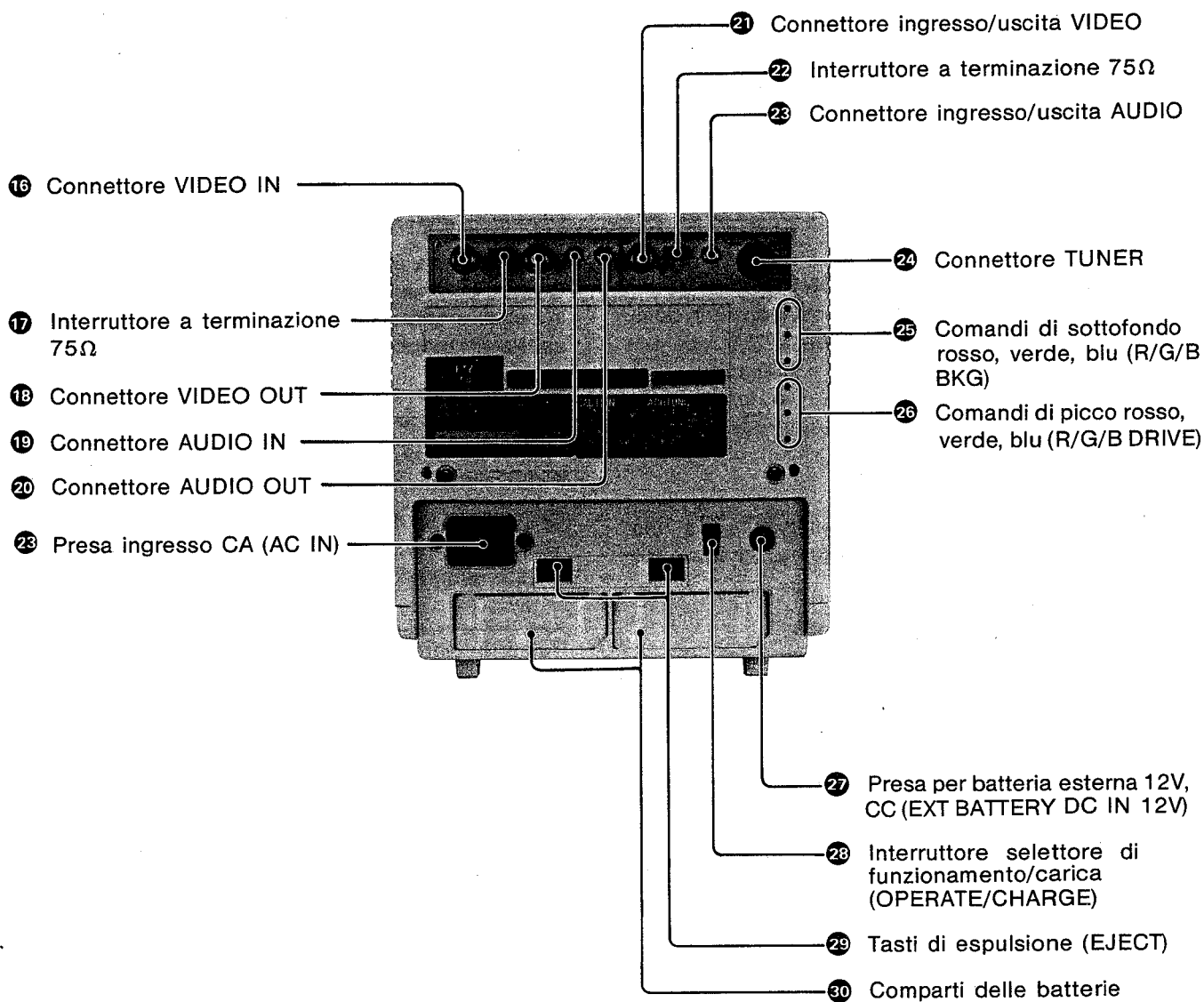
Uso del supporto



Applicazione dello schermo in dotazione
Schermo



1-2-2. Pannello posteriore



INPUT A (16 — 20)

Per controllare i segnali d'ingresso collegati a questi connettori, mantenete l'interruttore selettore INPUT in posizione rilasciata ($\square$ A).

16 Connettore VIDEO IN (tipo BNC)

Collegatelo all'uscita video di un'apparecchiatura video, come ad esempio un VTR o una videocamera a colori.

17 Interruttore a terminazione 75 Ω

Quando viene usato solo il connettore VIDEO IN (connettore VIDEO OUT non usato), regolate questo interruttore su ON. Quando entrambi i connettori VIDEO IN e VIDEO OUT vengono usati assieme per un collegamento a ciclo, regolatelo su OFF.

18 Connettore VIDEO OUT (tipo BNC)

Uscita di collegamento a ciclo del connettore VIDEO IN. Collegatelo all'ingresso video di un altro VTR o di un altro monitor.

19 Connettore AUDIO IN (minipresa)

Collegatelo all'uscita audio di un VTR o di un microfono (attraverso un amplificatore per microfono adatto allo scopo).

20 Connettore AUDIO OUT (minipresa)

Uscita di collegamento a ciclo del connettore AUDIO IN. Collegatelo all'ingresso audio di un VTR o di un altro monitor.

INPUT B (21 — 24)

Per controllare i segnali d'ingresso collegati a questi connettori, premete l'interruttore selettore INPUT ($\square$ B).

21 Connettore ingresso/uscita VIDEO (tipo BNC)

Collegatelo all'uscita video di un VTR o di una videocamera a colori.

Quando un sintonizzatore TV è collegato al connettore TUNER e l'interruttore a terminazione 75 Ω 22 è regolato su OFF, questo connettore può essere usato come uscita di collegamento a ciclo del connettore TUNER. Collegatelo all'ingresso video di un VTR o di un altro monitor.

22 Interruttore a terminazione 75 Ω

Normalmente, regolate questo interruttore su ON. Quando entrambi i connettori TUNER e VIDEO vengono usati assieme per un collegamento a ciclo, regolate l'interruttore su OFF.

23 Connettore ingresso/uscita AUDIO (minipresa)

Collegatelo all'uscita audio di un VTR o di un microfono (mediante un amplificatore per microfono adatto allo scopo).

Quando un sintonizzatore TV è collegato al connettore TUNER e l'interruttore a terminazione 75 Ω 22 è regolato su OFF, questo connettore può essere usato come uscita di collegamento a ciclo del connettore TUNER. Collegatelo all'ingresso audio di un VTR o di un altro monitor.

24 Connettore TUNER (DIN a 6 spinotti)

Collegatelo al connettore DIN a 6 spinotti di un sintonizzatore TV. I segnali video e audio vengono trasmessi al monitor e l'alimentazione proveniente dal monitor viene trasmessa al sintonizzatore mediante un unico cavo.

Nota

L'ingresso TUNER e gli ingressi VIDEO/AUDIO 21 , 23 non possono essere usati simultaneamente. Quando viene effettuato il collegamento di un sintonizzatore TV al monitor, accertatevi di scollegare ogni apparecchio fonte d'ingresso dai connettori VIDEO e AUDIO, o viceversa.

25 Comandi di sottofondo rosso, verde, blu (R/G/B BKG)

Usati per regolare l'equilibratura del bianco del sottofondo.

26 Comandi di picco rosso, verde, blu (R/G/B DRIVE)

Usati per regolare l'equilibratura del bianco al picco di bianco.

27 Presa per batteria esterna 12V, CC (EXT BATTERY DC IN 12V)

Collegatevi il cavo per batteria d'auto opzionale DCC-16AE.

28 Interruttore selettore di funzionamento/carica (OPERATE/CHARGE)

Normalmente, regolate questo interruttore su OPERATE. Per caricare il blocco batteria, portate il selettore su CHARGE. L'indicatore CHARGE sul pannello anteriore si accende. Quando la batteria è carica, l'indicatore CHARGE si spegne; riportate il selettore su OPERATE.

29 Tasti di espulsione (EJECT)

Spostate il tasto EJECT verso l'alto per estrarre il blocco batteria.

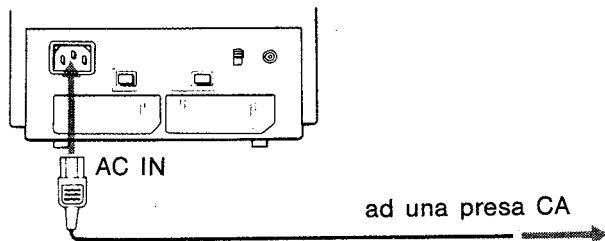
30 Comparti delle batterie

Inserite il blocco batteria NP-1.

1-3. FONTI DI ALIMENTAZIONE

1-3-1. Alimentazione CA

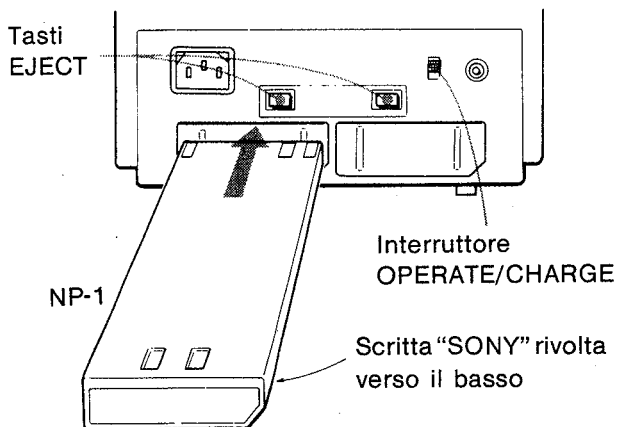
Collegate il cavo di alimentazione CA in dotazione alla presa AC IN e ad una presa CA.



Quando il cavo di alimentazione CA è inserito nella presa AC IN, il blocco batteria (se presente), o la batteria d'auto (se collegata), sarà automaticamente scollegato.

1-3-2. Batteria ricaricabile

Inserite il blocco batterie Sony NP-1 (opzionale) nel comparto batterie come illustrato. Il monitor può funzionare con uno o due blocchi batteria. È consigliato l'uso di due blocchi batteria per un uso prolungato.



Per estrarre il blocco batteria, springete verso l'alto il tasto EJECT.

Nota

Accertatevi che il cavo di alimentazione CA e il cavo per batteria d'auto non siano collegati al monitor altrimenti l'apparecchio non potrà funzionare con il blocco (o i blocchi) batteria.

Per caricare il blocco batteria

Prima di usare il monitor, ricordate di caricare completamente il blocco batteria. La ricarica richiede circa 6 ore a temperature normali.

- 1 Collegare il cavo di alimentazione CA in dotazione alla presa AC IN e ad una presa CA.
- 2 Inserire il blocco (o i blocchi) batteria nel comparto (o comparti) batteria.
- 3 Regolare l'interruttore OPERATE/CHARGE su CHARGE.
- 4 Premere l'interruttore POWER. L'indicatore CHARGE si accende ad indicare che la carica è iniziata.

Quando la carica è completa, l'indicatore CHARGE si spegne. Assicuratevi di riposizionare l'interruttore OPERATE/CHARGE su OPERATE.

Quando l'interruttore OPERATE/CHARGE si trova su CHARGE, le immagini non vengono visualizzate.

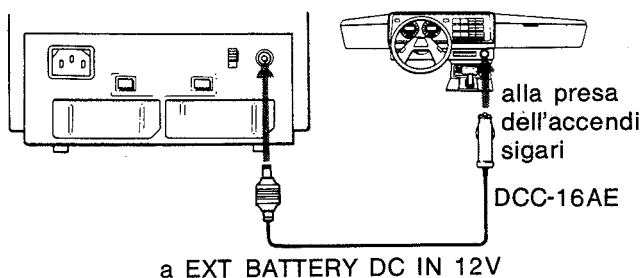
- Per cariche più veloci, usate per l'NP-1 il caricatore per batteria opzionale BC-1WA.

Durata delle batterie

A temperature normali, le immagini saranno visualizzate per circa 60 minuti usando due blocchi batteria e facendo funzionare il sintonizzatore TV collegato al monitor. Se il sintonizzatore TV non viene usato, la durata delle batterie si estenderà fino a 75/80 minuti. Quando la batteria è scarica, l'indicatore verde BATT lampeggia per circa cinque minuti, e quindi l'alimentazione viene scollegata per evitare un'eccessiva scarica della batteria. Quando l'indicatore BATT si spegne, premere l'interruttore POWER e sostituire il blocco (o i blocchi) batteria scarico, o usate un'altra fonte di alimentazione.

1-3-3. Batteria d'auto

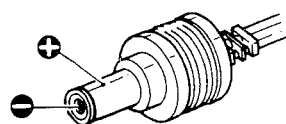
Usate il cavo per batteria d'auto Sony DCC-16AE (opzionale) per una batteria d'auto da 12V. Collegate il cavo per batteria d'auto alla presa EXT BATTERY DC IN 12V e alla presa dell'accendisigari dell'automobile. Per ulteriori dettagli, fate riferimento alle istruzioni d'uso del cavo per batteria d'auto.



Quando il cavo per batteria d'auto è inserito nella presa EXT BATTERY DC IN 12V, il blocco batteria (se presente) verrà automaticamente scollegato.

Nota

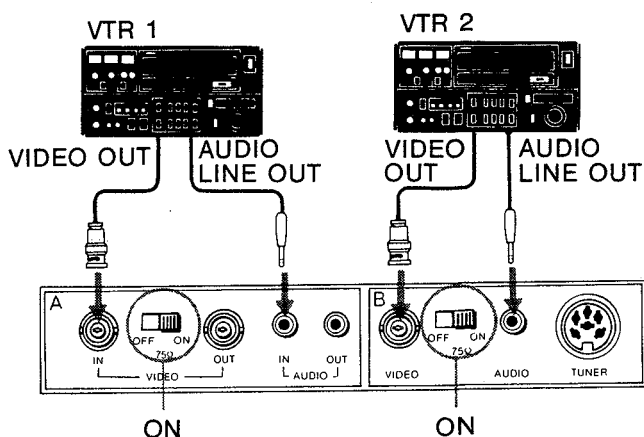
Nel caso venga usato un cavo per batteria d'auto non di marca Sony, è necessario inserire un fusibile nel cavo e la polarità della spina deve essere come illustrato.



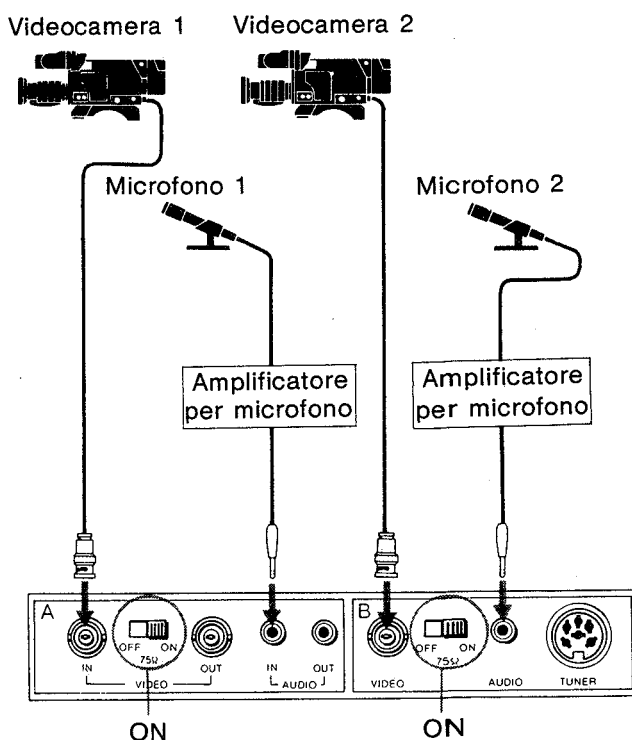
Polarità della spina del cavo per batteria d'auto Sony

1-4. COLLEGAMENTI DI SISTEMA

1-4-1. Collegamento di un VTR (videoregistratore)

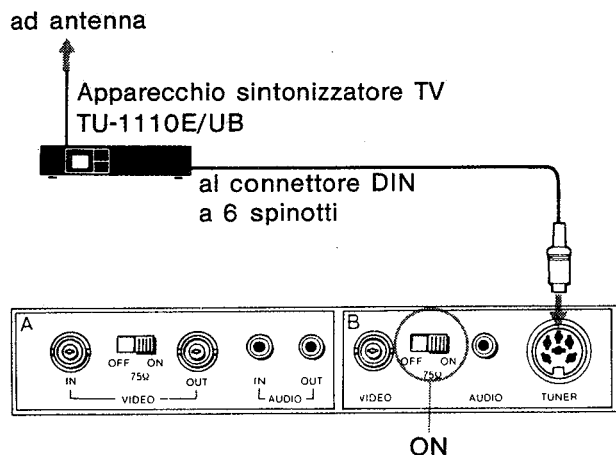


1-4-2. Collegamento di una telecamera e di un microfono



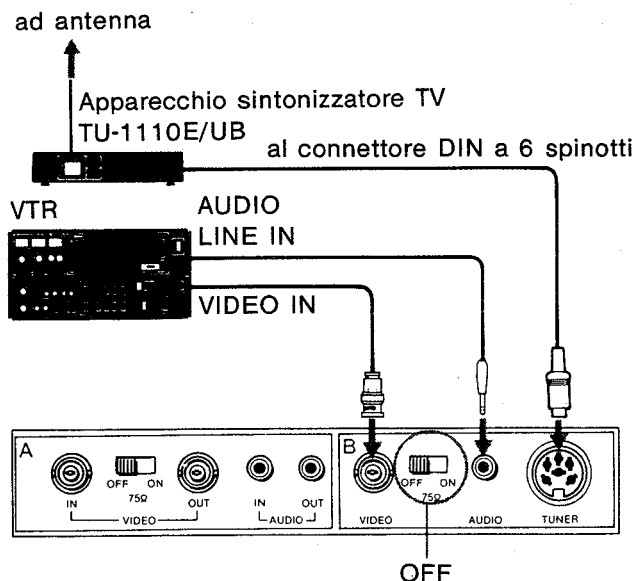
1-4-3. Collegamento di un sintonizzatore TV

L'apparecchio sintonizzatore TV Sony TU-1110E/UB, dotato di un connettore DIN a 6 spinotti, può essere collegato al monitor.



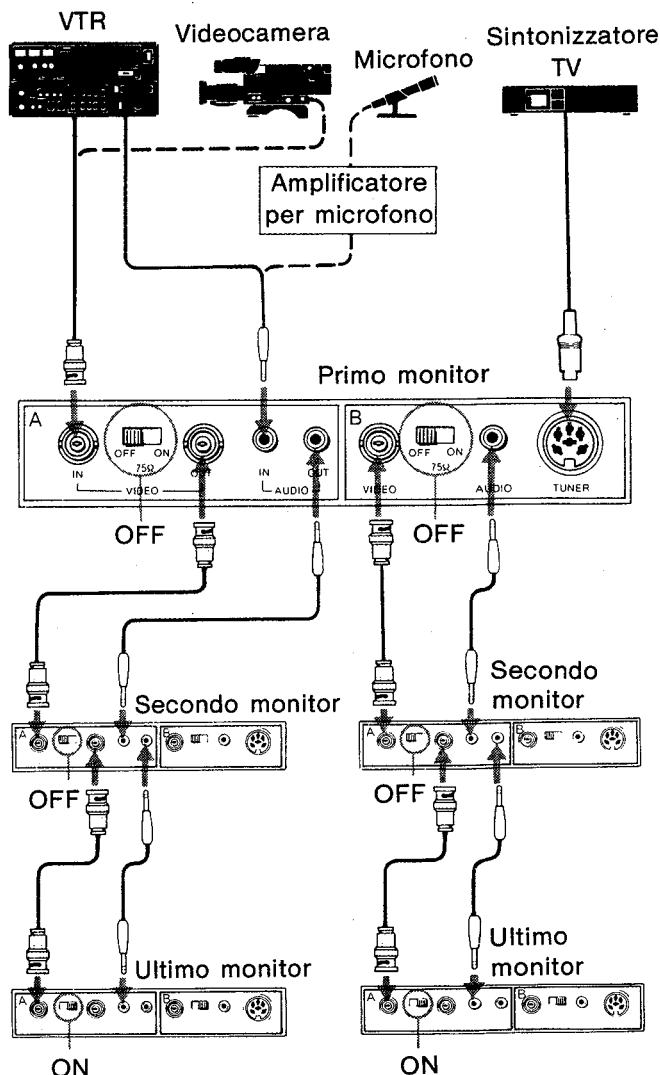
1-4-4. Collegamento di un sintonizzatore TV e di un VTR

I connettori VIDEO e AUDIO di INPUT B possono essere usati come uscite di collegamento a ciclo del connettore TUNER. Effettuando il seguente collegamento, i programmi TV ricevuti dal sintonizzatore TV possono essere registrati su un VTR mentre se ne visualizzano le immagini.

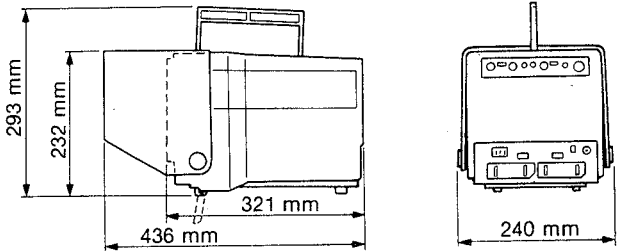


1-4-5. Collegamento multiplo di monitor

Il collegamento a ciclo è utile per controllare lo stesso segnale su diversi monitor. Usate connettori VIDEO OUT e AUDIO OUT di INPUT A e, per il sintonizzatore TV, usate i connettori VIDEO e AUDIO di INPUT B. È possibile collegare fino ad un massimo di 10 monitor per gruppo. Regolate l'interruttore a terminazione 75Ω dell'ultimo monitor su ON e l'interruttore degli altri monitor su OFF.



1-5. CARATTERISTICHE TECNICHE

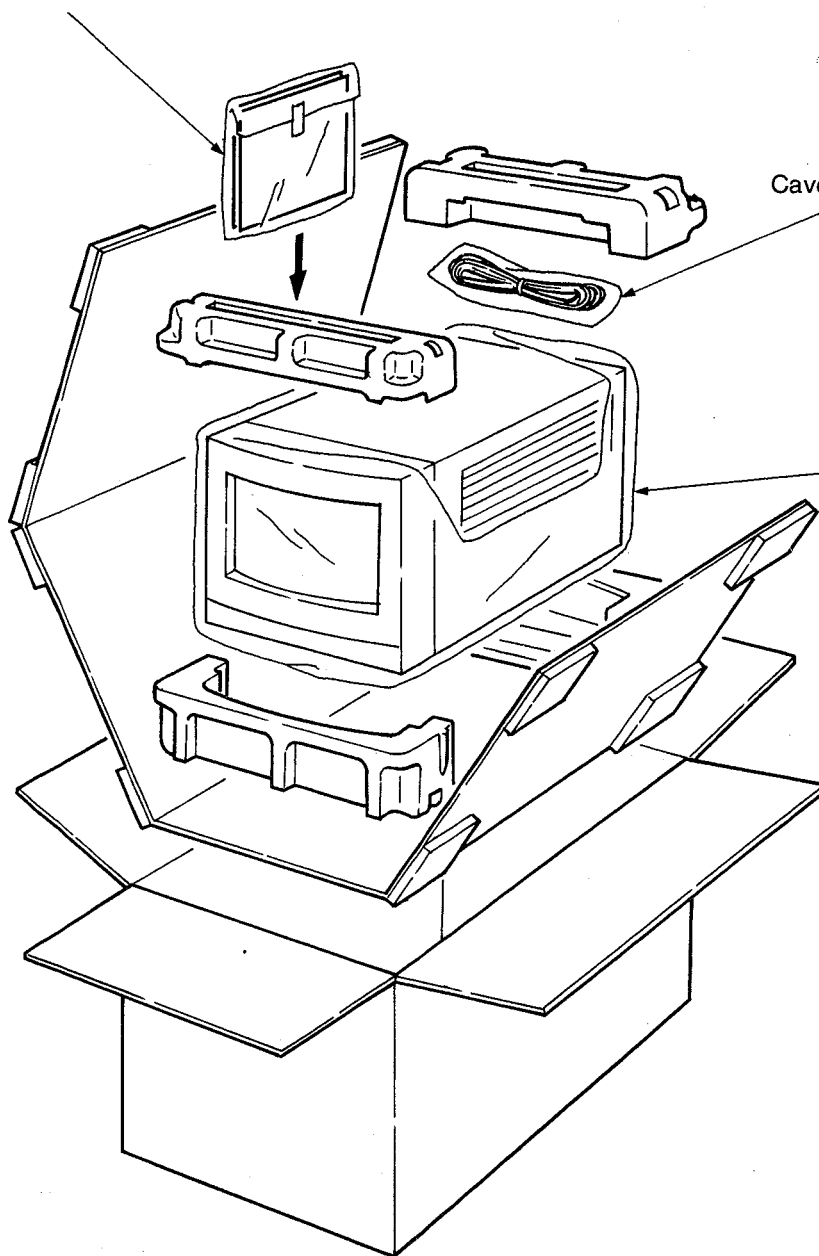
Sistema di colore	Sistemi PAL e SECAM, a commutazione automatica	Connettore TUNER	Connettore DIN a 6 spinotti
Cinescopio	Cinescopio Super Fine Pitch Trinitron Circa 195 mm (Immagine di circa 221 mm misurata diagonalmente) deflessione di 70 gradi		Spin. N° 1: non utilizzato Spin. N° 2: ingresso video, composito, 1 Vp-p ± 6 dB, 75 ohm, non bilanciati, sinc. negativa Spin. N° 3: terra Spin. N° 4: ingresso audio, -5 dB, 47 kohm o più Spin. N° 5: uscita di potenza Spin. N° 6: non utilizzato
Risoluzione	400 linee TV, in bianco e nero	Alimentazione	220/240V CA, 50/60 Hz 12V, CC, con il blocco batteria opzionale Sony NP-1 o con batteria d'auto da 12V usando il cavo per batteria d'auto opzionale DCC-16AE.
Temperature del colore	6.500°K	Consumo	48W, CA 40W, CC
Risposta in frequenza	5,5 MHz (-3 dB)	Dimensioni	
Linearità orizzontale	$\pm 8\%$		
Linearità verticale	$\pm 8\%$		
Gamma di separazione linea	Orizzontale ± 500 Hz		
Imprecisione di immagine	6%		
Sotto-scansione di immagine	5%		
Ritardo H/V	Orizzontale: circa $\frac{1}{4}$ di linea Verticale: circa $\frac{1}{2}$ campo		
Perdita in ritorno	5 MHz, -30 dB (INPUT A, INPUT B)		
Zooming	Entro il 3%		
Convergenza	Area centrale 0,5 mm Periferica 0,7 mm		
Luminosità	Oltre 30 foot-lamberts		
Ingressi	VIDEO IN (INPUT A): connettore BNC VIDEO (INPUT B): connettore BNC Composito 1 Vp-p ± 6 dB, 75 ohm, non bilanciati, sinc. negativa AUDIO IN (INPUT A): minipresa AUDIO (INPUT B): minipresa -5 dB, 47 kohm o più		
Uscite di collegamento a ciclo	VIDEO OUT (INPUT A): connettore BNC VIDEO (INPUT B): connettore BNC 1 Vp-p, 75 ohm, non bilanciati, sinc. negativa AUDIO OUT (INPUT A): minipresa AUDIO (INPUT B): minipresa Livello di uscita 0,8W	Peso	Circa 7,2 kg, non inclusi gli accessori
		Accessori in dotazione	Cavo di alimentazione CA (1) Schermo (1) Manuale di funzionamento e manutenzione (1)
		Accessori opzionali	Apparecchio sintonizzatore TV TU-1110E/UB Blocco batteria NP-1 Cavo per batteria d'auto DCC-16AE Carica batterie BC-1WA Custodia per trasporto VLC-100
		Disegno e caratteristiche tecniche soggetti a modifiche senza preavviso.	

1-6. IMBALLAGGIO

Manuale di funzionamento e manutenzione,
Schermo

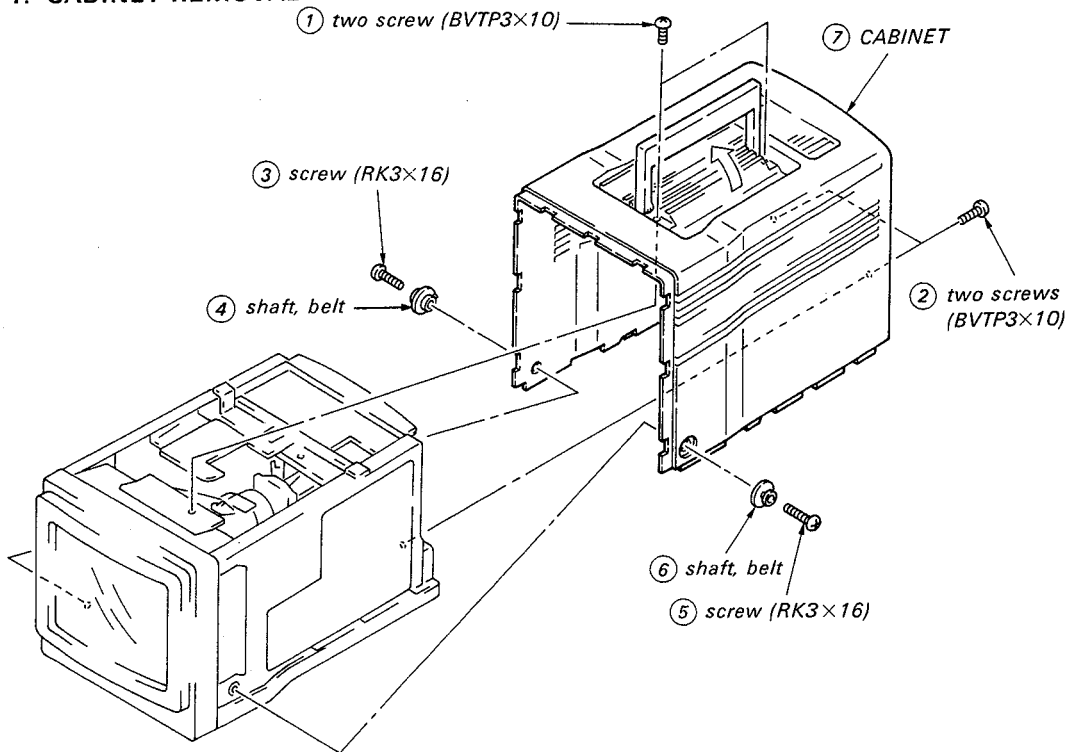
Cavo di alimentazione CA

BVM-9021ME

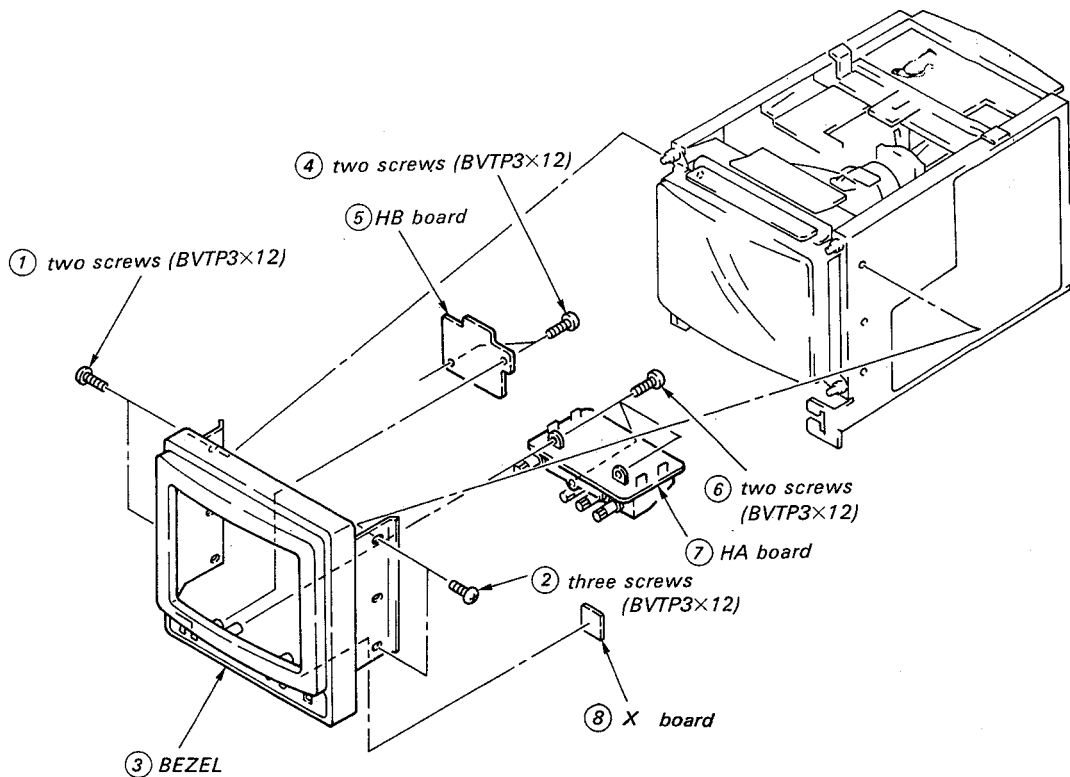


SECTION 2 DISASSEMBLY AND REPLACEMENT

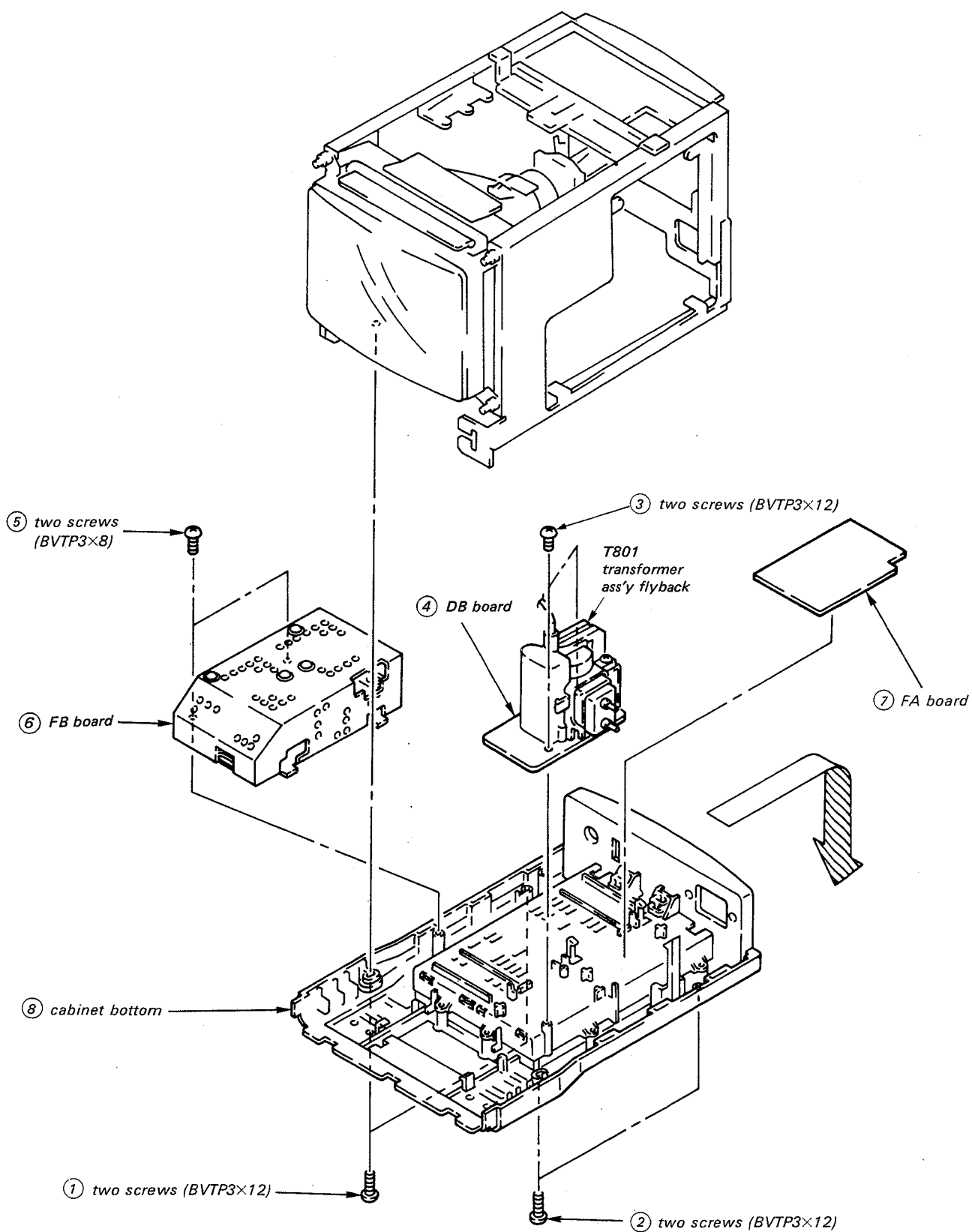
2-1. CABINET REMOVAL



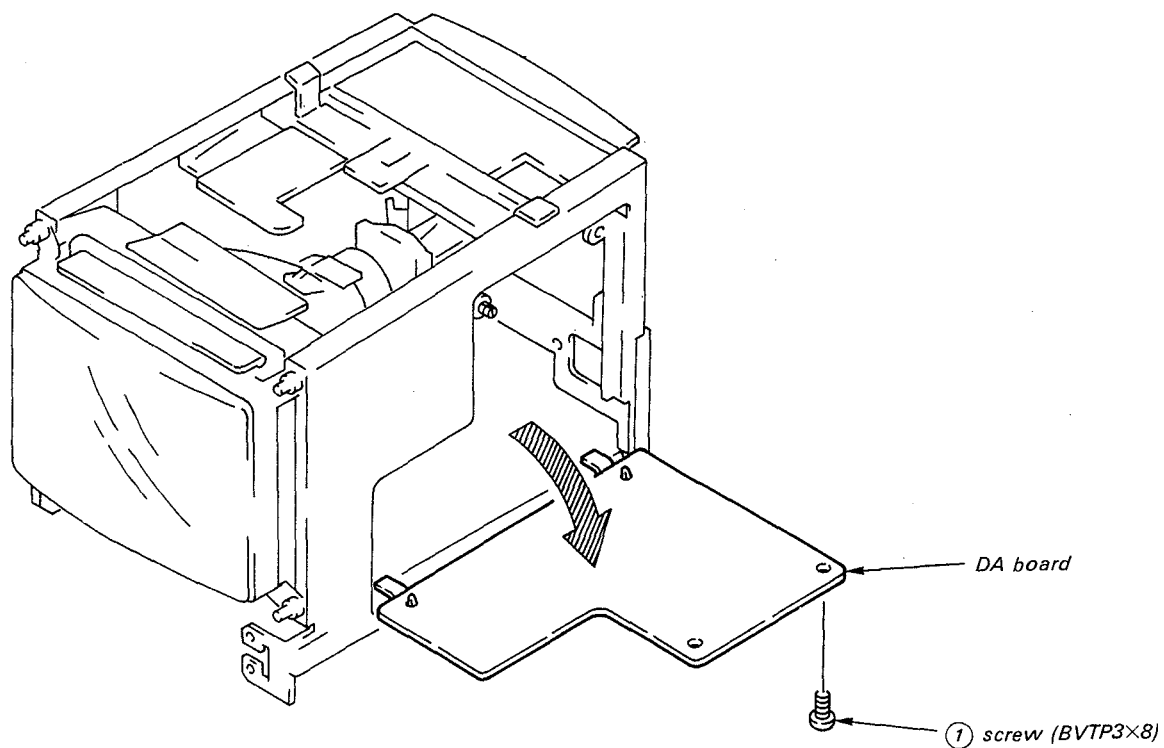
2-2. BEZEL REMOVAL (HA, HB, XA BOARD)



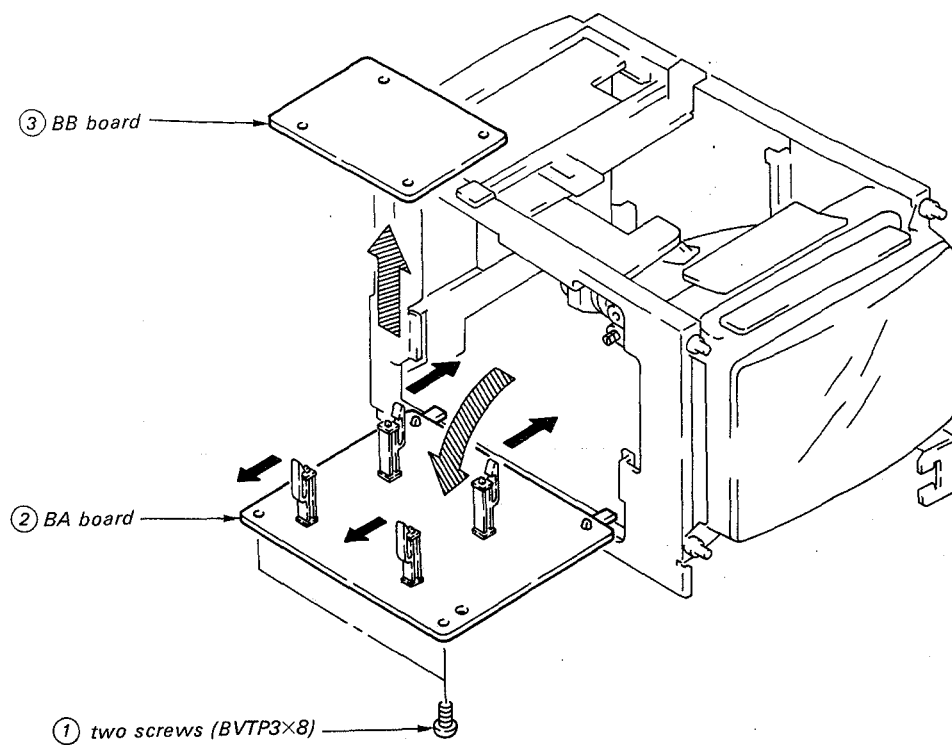
2-3. CABINET BOTTOM REMOVAL



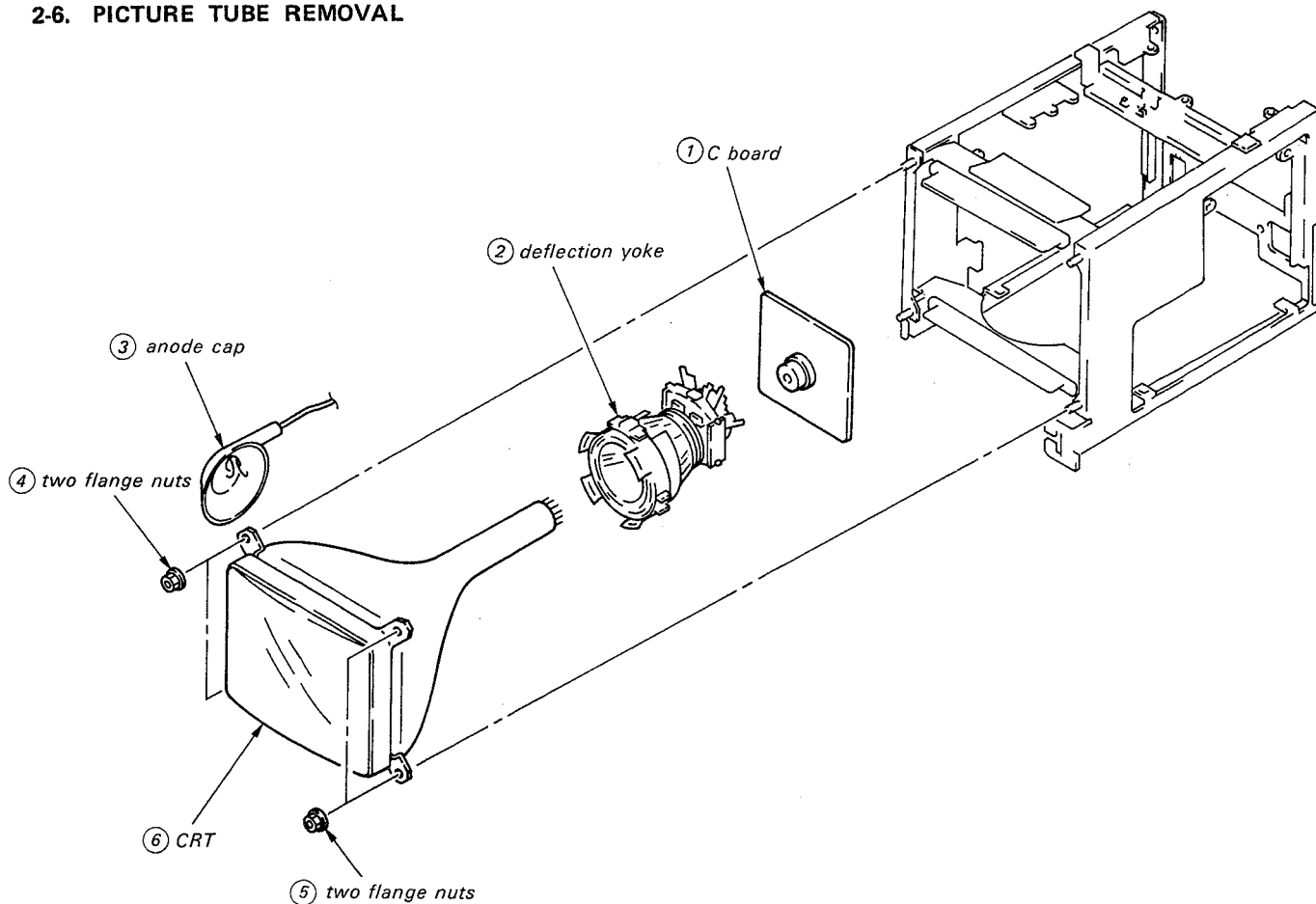
2-4. DA BOARD REMOVAL



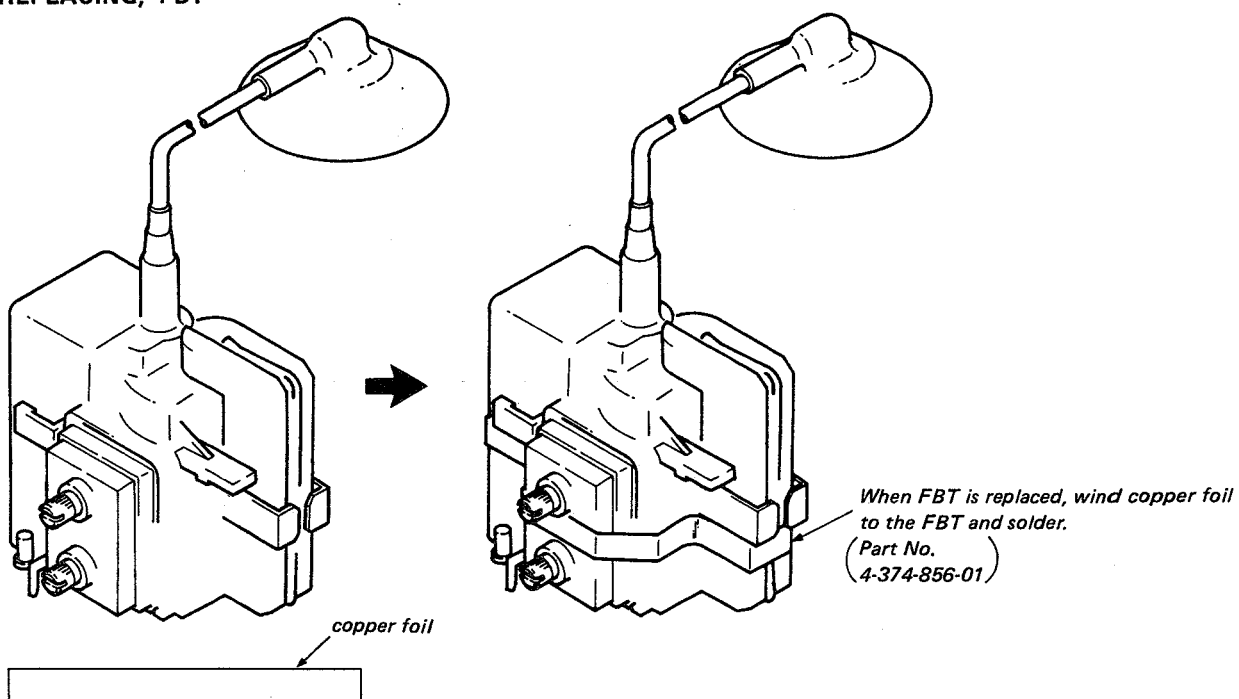
2-5. BA, BB BOARD REMOVAL



2-6. PICTURE TUBE REMOVAL



2-7. REPLACING, FBT



SECTION 3 SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

Controls and switch should be set as follows unless otherwise noted:

BRT. CONTR controls fully clockwise

Make the following adjustments in the order as follows given:

- 3-1. Beam Landing
- 3-2. Focus Adjustment
- 3-3. Convergence
- 3-4. White Balance

Note: Test Equipment Required

1. Color-bar/pattern generator
2. Degausser

3-1. BEAM LANDING

Preparation:

- Before starting, degauss the entire screen.
- 1. Loosen deflection yoke screw.
- 2. Remove deflection yoke spacers.
- 3. Adjust purity control to center the slide between two projections as shown in Fig. 1-1.
- 4. Slide deflection yoke as far forward as it will go.
- 5. Turn RED CUT OFF VR (RV259) MAX and GREEN (RV261) and BLUE CUT OFF RV (RV263) MIN.
- 6. Turn purity control to center vertical red band as shown in Fig. 1-2.
- 7. Slide deflection yoke back for a uniform red screen.
- 8. Check green and blue rasters for uniformity. Repeat the steps 6, 7 and 8.
- 9. Turn all CUT OFF VR (RV259, 261, 263) for mechanical CENTER.
- 10. Install the deflection yoke spacers.
- 11. Tighten the deflection yoke screw.
- 12. Check if mislanding appears at corners a-d as shown in Fig. 1-3. If mislanding is observed, correct it as shown in Fig. 1-4.

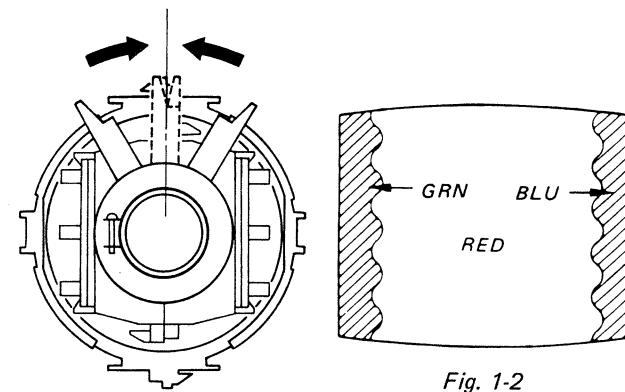


Fig. 1-1

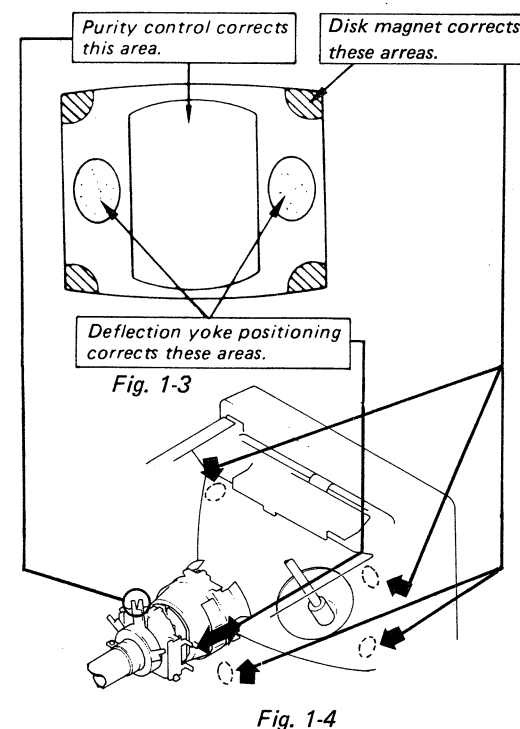
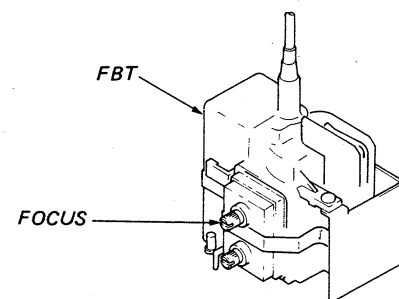


Fig. 1-4



3-1(E)

3-3. CONVERGENCE

Preparation:

- Before starting, make FOCUS, H.SIZE, V.SIZE and V.LIN adjustments.
- Turn BRT control fully counterclockwise.
- Feed in the dot pattern.

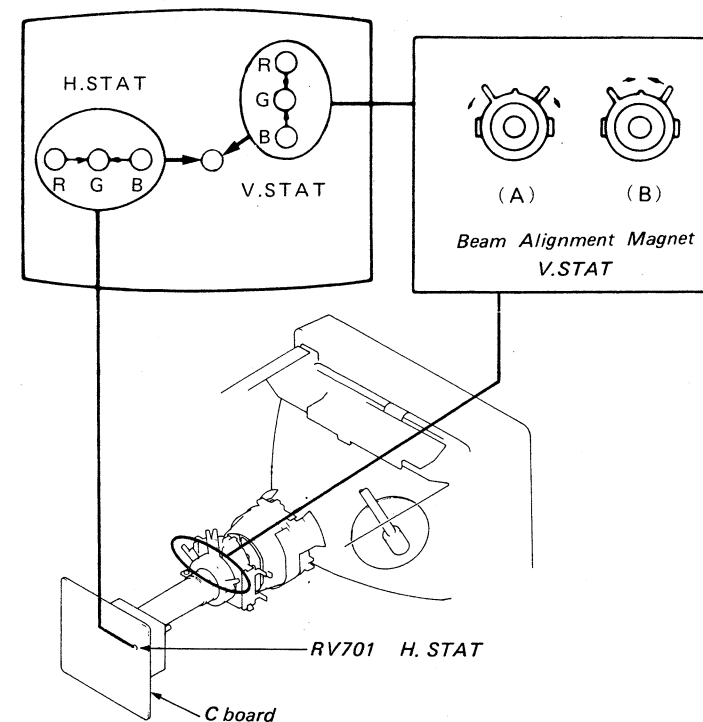
- (1) Horizontal Static Convergence and Vertical Static Convergence

If blue dot does not coincide with red and green dots.

Move BMC magnet to correct insufficient H.Static convergence.

Rotate BMC magnet to correct insufficient V.static convergence.

In either case, repeat Beam Landing Adjustment.

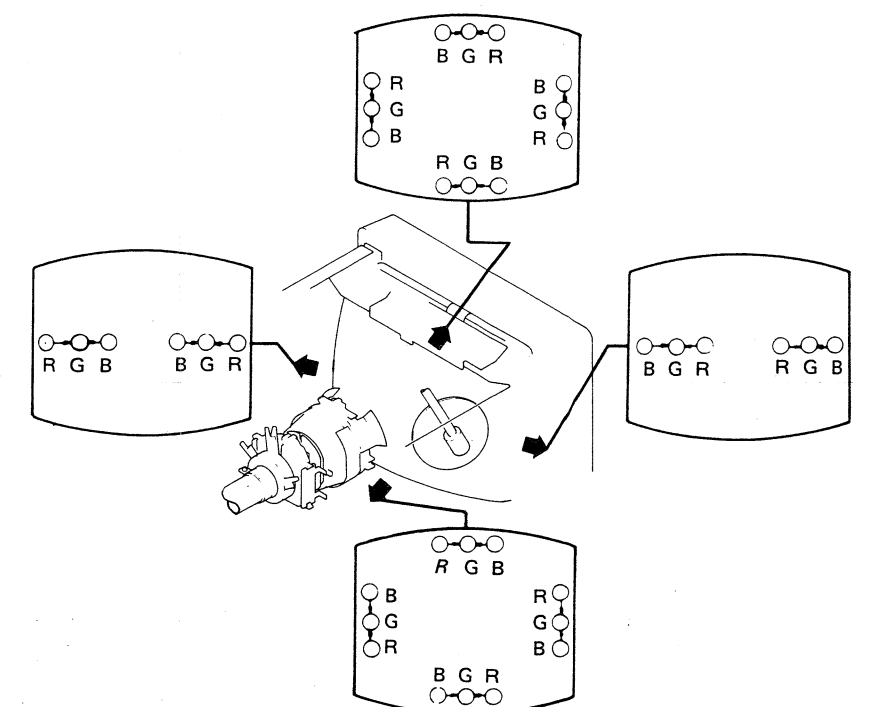


- (2) Dynamic Convergence Adjustment

Preparation:

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.

1. Loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.



3-2(E)

3-3. CONVERGENCE

Preparation:

- Before starting, make FOCUS, H.SIZE, V.SIZE and V.LIN adjustments.
- Turn BRT control fully counterclockwise.
- Feed in the dot pattern.

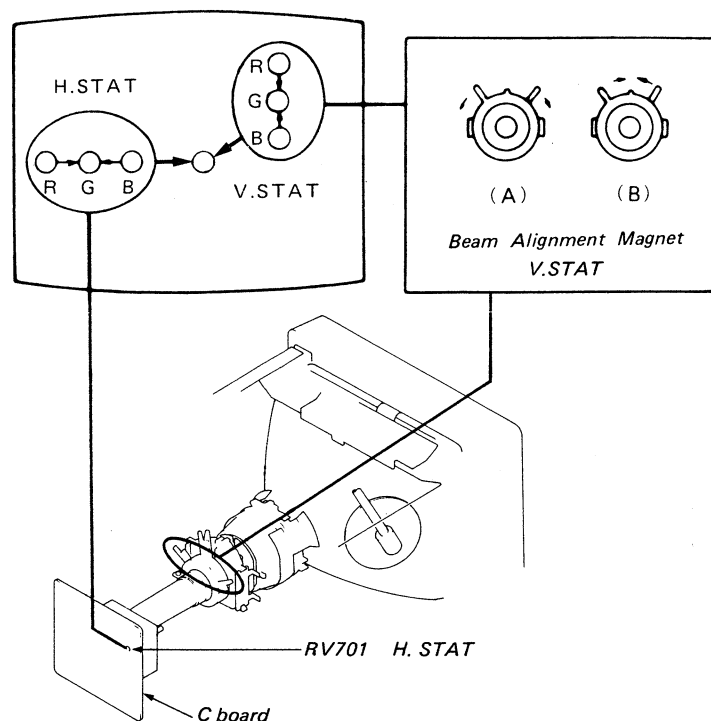
(1) Horizontal Static Convergence and Vertical Static Convergence

If blue dot does not coincide with red and green dots.

Move BMC magnet to correct insufficient H.Static convergence.

Rotate BMC magnet to correct insufficient V.static convergence.

In either case, repeat Beam Landing Adjustment.

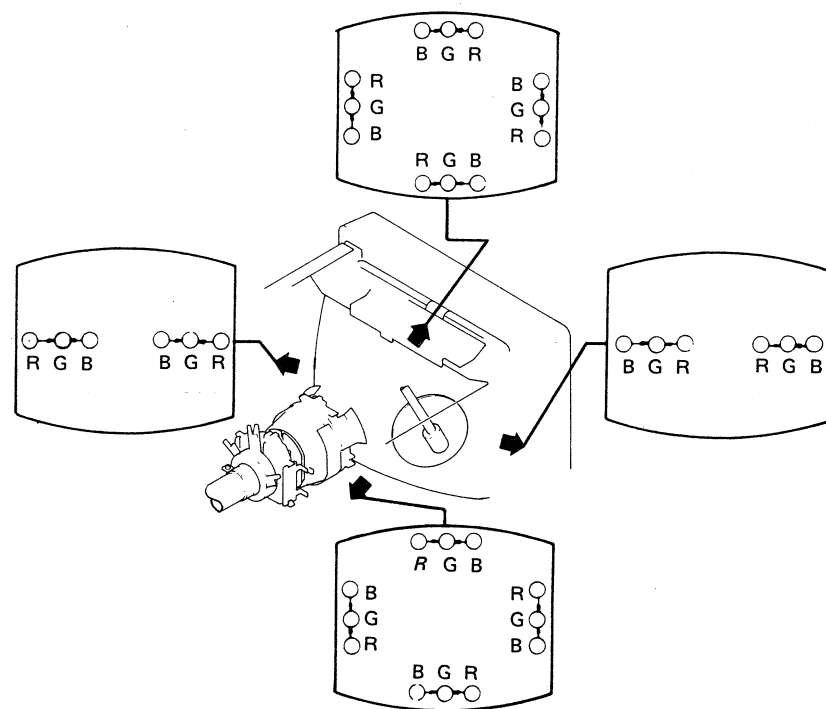


(2) Dynamic Convergence Adjustment

Preparation:

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.

1. Loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

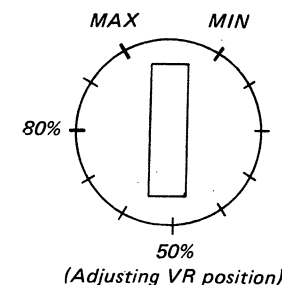


3-2(E)

3-4. WHITE BALANCE

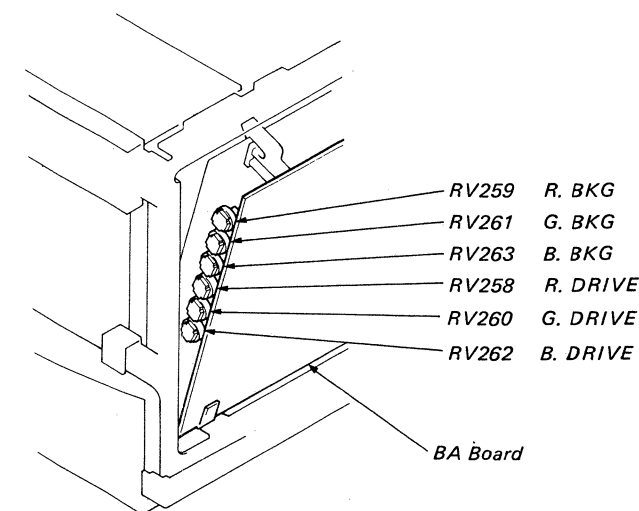
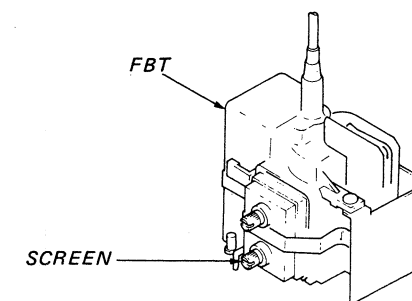
(1) SCREEN (G2)

1. Input a dots pattern.
2. Set the PICTURE control at minimum and turn the BRIGHT control fully counterclockwise.
3. Confirm that BKG voltage is less than 105V dc when turning RV259 (R.BKG), RV261 (G.BKG) and RV263 (B.BKG).
4. Note the color which becomes visible first when turning SCREEN VR.



(2) WHITE BALANCE

1. Input a cross-hatch pattern.
2. Set the PICTURE control to minimum and turn the BRIGHT control click position.
3. Turn RV262 (B.DRIVE), RV260 (G.DRIVE) and RV258 (R.DRIVE) fully clockwise.
4. Set RV259 (R.BKG), RV261 (G.BKG) and RV263 (B.BKG) to minimum.
5. Turn RV509 (SUB BRT) slowly to obtain a faintly visible cross-hatch. Note the color that first becomes visible by turning. Do not turn a BKG control for this color.
6. Adjust the other two BKG controls for best white balance (neutral gray) of the faint cross-hatch. Set the PICTURE control to maximum and turn the BRIGHT control fully clockwise. Observe the screen and adjust the DRIVE controls for best white balance.
7. Repeat steps 1. through 6. several times.



3-3(E)

SEZIONE 3

REGOLAZIONE DI SISTEMAZIONE

Le regolazioni segue devono essere effettuate quando un'allineamento completo è richiesto o un nuovo tubo televisivo è montato.
Controlli e interruttore devono essere messi come segue, se non notato altrimenti:
Controlli BRT (luminosità) . . . in senso orario completamente

Effettuate le regolazioni in ordine segue:

- 3-1. Atterraggio del fascio
- 3-2. Regolazione del fuoco
- 3-3. Convergenza
- 3-4. Bilancia bianca

Nota: Apprecchi di prova richiesti
1. Generatore di color-bar/pattern
2. Demagnetizzatore

3-1. ATTERRAGGIO DEL FASCIO

Preparazione:

- Prima d'avvio, demagnetizzate lo schermo intero.
- 1. Allentate la vite del giogo di deflessione.
- 2. Muovete le distanziali per giogo di deflessione.
- 3. Regolate il controllo di purezza per centrare il cursore fra due proiezioni come mostrato nella Fig. 1-1.
- 4. Fate scivolare il giogo di deflessione più avanti per quanto andrà.
- 5. Girate CUT OFF VR (RV259) del rosso a massimo e CUT OFF VR del verde (RV261) e blu (RV263) a minimo.
- 6. Girate il controlli di purezza per centrare la banda verticale rossa come si vede nella Fig. 1-2.
- 7. Fate scivolare la spalla del giogo di deflessione per ottenere uno schermo rosso uniforme.
- 8. Verificate le trame verde e blu per uniformità. Ripetete le fase 6, 7 e 8.
- 9. Girate i tutti CUT OFF VR (RV259, 261, 163) al centro meccanico.
- 10. Installate i distanziali per i gioghi di deflessione.
- 11. Serrate la vite del giogo di deflessione.
- 12. Verificate se un errore d'atterraggio apparisce negl'angoli a - d come mostroato nella Fig. 1-3. Se ci sia un errore d'atterraggio, correggetelo come mostrato nella Fig. 1-4.

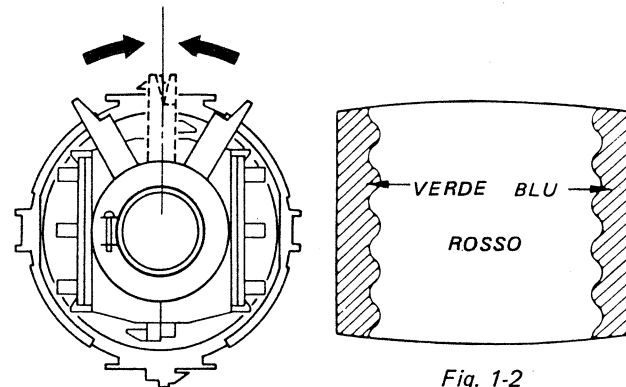


Fig. 1-1

Fig. 1-2

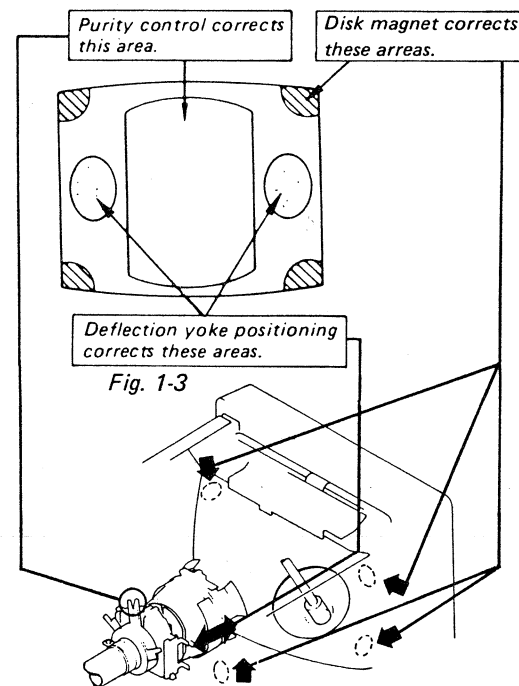
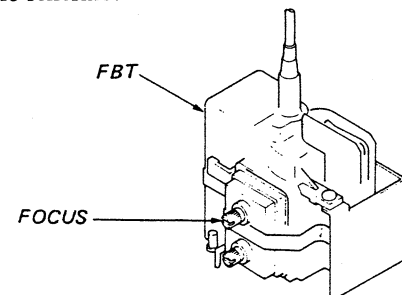


Fig. 1-3

Fig. 1-4



3-1(I)

3-2. REGOLAZIONE DEL FUOCO

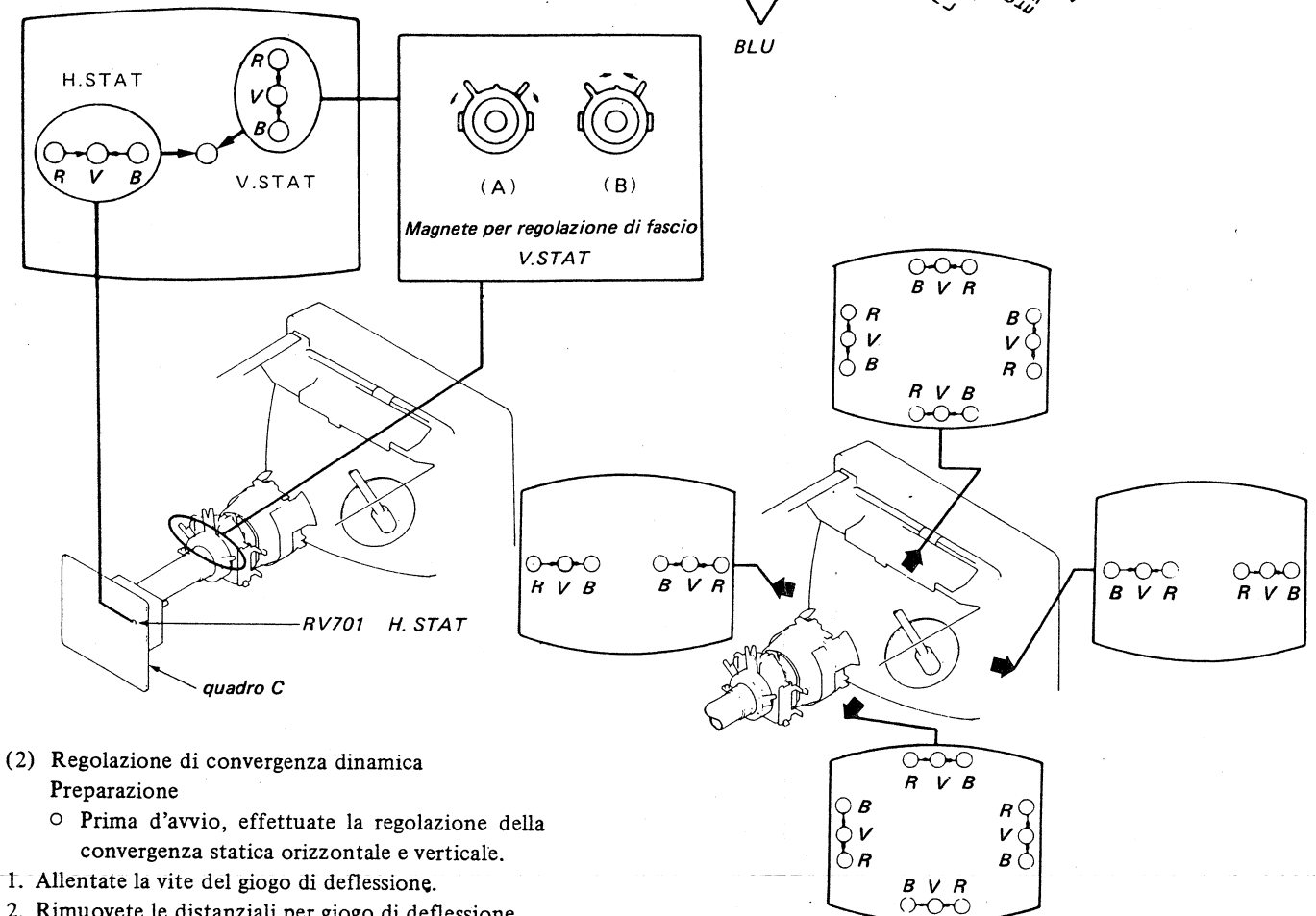
- (1) Immettete un segnale di monoscopio.
Controllo PICTURE (immagine) 80%
Controllo BRIGHT (luminosità) 50%
- (2) Regolate il controllo del fuoco per ottenere un'immagine migliore sul centro e su ambedue lati dello schermo.

3-3. CONVERGENZA

Preparazione:

- Prima d'avvio, effettuate le regolazioni del fuoco, H. SIZE (Classe-tipo orizzontale), V. SIZE (Classe-tipo verticale) e V. LIN (Linearità verticale).
- Girate il controllo di luminosità completamente in senso antiorario.
- Immettete il pattern di punto.

- (1) Convergenza statica orizzontale e verticale
Se il punto blu non coincide con quelli rosso e verde, effettuate le misure segue.
Nuovete il magnete BMC per correggere la convergenza statica orizzontale ch'è insufficiente. Rotate il magnete BMC per correggere la convergenza statica verticale ch'è insufficiente.
In ambedue casi, ripetete la regolazione dell'atterraggio di fascio.



- (2) Regolazione di convergenza dinamica

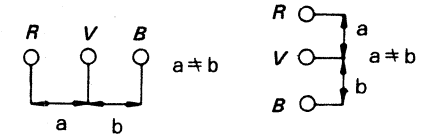
Preparazione

- Prima d'avvio, effettuate la regolazione della convergenza statica orizzontale e verticale.
- 1. Allentate la vite del giogo di deflessione.
- 2. Rimuovete le distanziali per giogo di deflessione.
- 3. Muovete il giogo di deflessione per ottenere la convergenza ottimale come mostrato sotto.
- 4. Avvitare la vite del giogo di deflessione.
- 5. Installate le distanziali per giogo di deflessione.

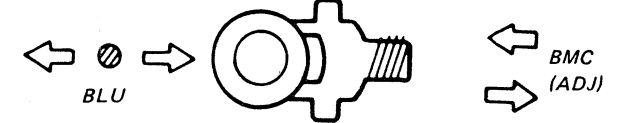
Non-convergenza orizzontale

○ HMC

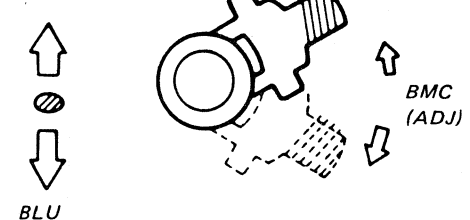
○ VMC



Regolate Non-convergenza orizzontale



Regolate Non-convergenza verticale



3-4. B

(1) Scf

1.

2.

3.

4.

(2) Bil

1.

2.

3.

4.

5.

6.

7.

3-2(I)

3-3. CONVERGENZA

Preparazione:

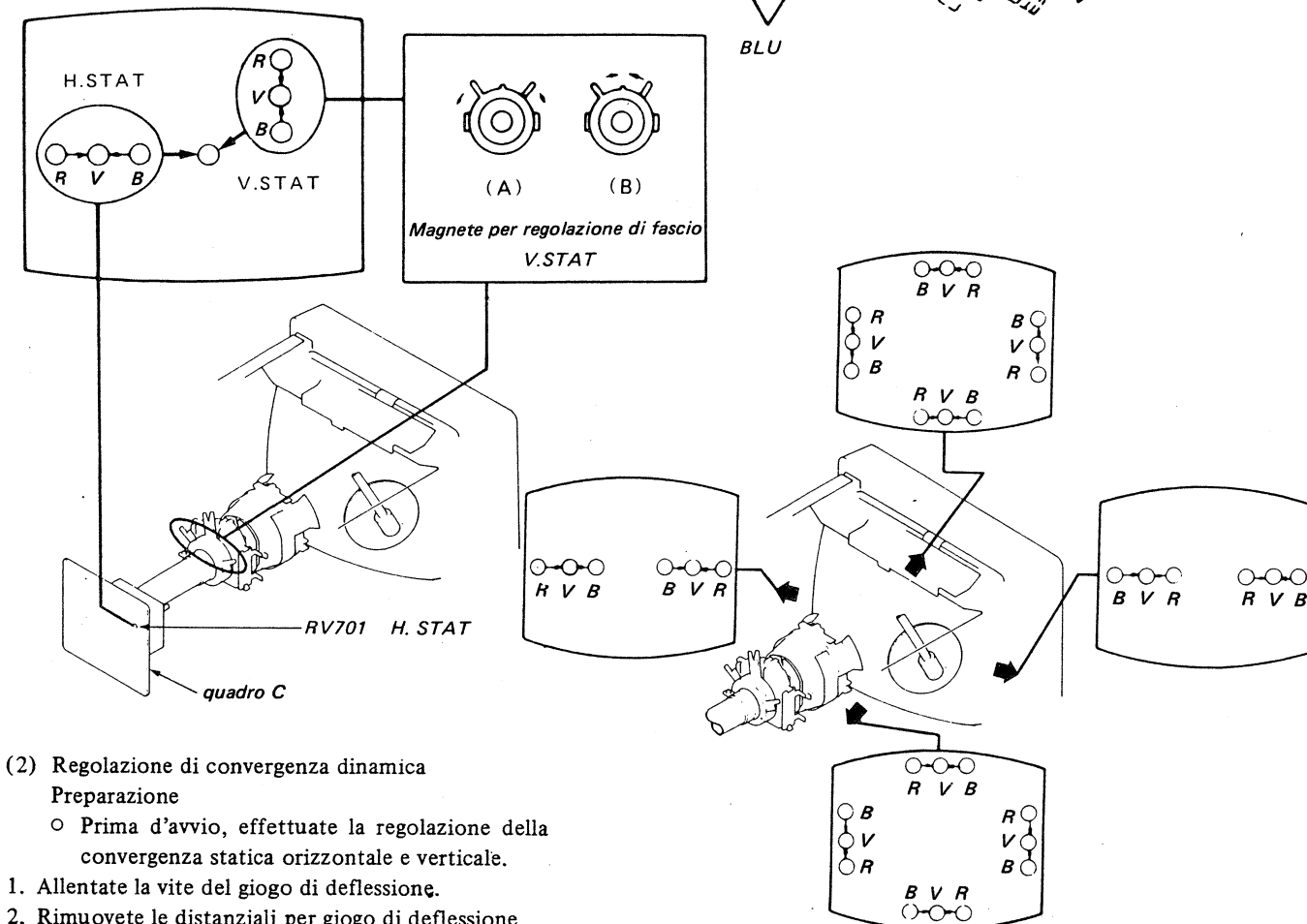
- Prima d'avvio, effettuate le regolazioni del fuoco, H. SIZE (Classe-tipo orizzontale), V. SIZE (Classe-tipo verticale) e V. LIN (Linearità verticale).
- Girate il controllo di luminosità completamente in senso antiorario.
- Immettete il pattern di punto.

(1) Convergenza statica orizzontale e verticale

Se il punto blu non coincide con quelli rosso e verde, effettuate le misure segue.

Nuovete il magnete BMC per correggere la convergenza statica orizzontale ch'è insufficiente. Rotate il magnete BMC per correggere la convergenza statica verticale ch'è insufficiente.

In ambedue casi, ripetete la regolazione dell'atterraggio di fascio.



(2) Regolazione di convergenza dinamica

Preparazione

- Prima d'avvio, effettuate la regolazione della convergenza statica orizzontale e verticale.

1. Allentate la vite del giogo di deflessione.
2. Rimuovete le distanziali per giogo di deflessione.
3. Muovete il giogo di deflessione per ottenere la convergenza ottimale come mostrato sotto.
4. Avvitare la vite del giogo di deflessione.
5. Installate le distanziali per giogo di deflessione.

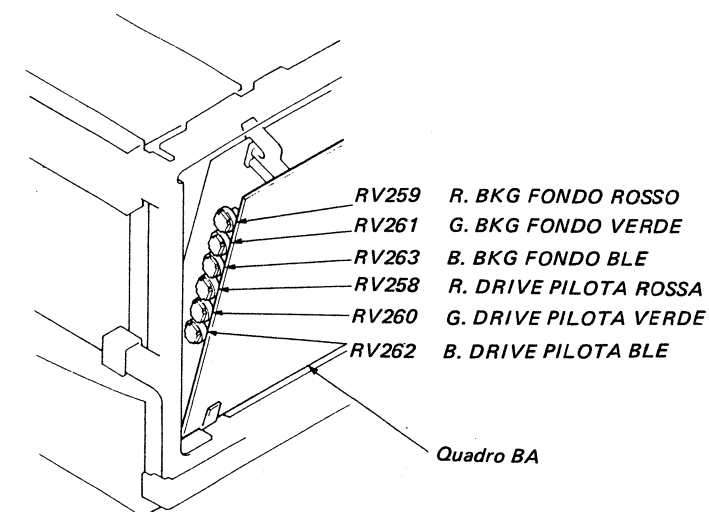
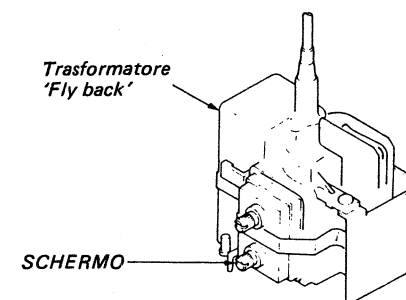
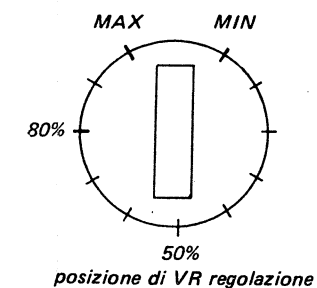
3-4. BILANCIA BIANCA

(1) Schermo (G2)

1. Immettete un pattern dei punti.
2. Mettete il controllo d'immagine a minimo e girate il controllo di luminosità in senso antiorario completamente.
3. Accertate che il voltaggio di sfondo sia meno di 105 Vdc, girando RV259 (R. BKG), RV261 (V. BKG) e RV263 (B. BKG).
4. Notate il colore che viene visibile alla prima, girando SCREEN VR (VR di schermo).

(2) Bilancia bianca

1. Immettete un monoscopio di prova.
2. Mettete il controllo d'immagine a minimo e girate il controllo di luminosità alla posizione dello scatto.
3. Girate RV262 (B. DRIVE) (B-pilota), RV260 (G. DRIVE) (V-pilota) e RV258 (R-DRIVE) (R-pilota) in senso orario completamente.
4. Mettete RV259 (R. BKG), RV261 (G. BKG) e RV263 (B. BKG) a minimo.
5. Girate RV509 (SUB Luminosità) lentamente per ottenere un monoscopio visibile indistintamente. Notate il colore che viene visibile alla prima da giro. Non girare più il controllo di fondo per questo colore.
6. Regolate gli altri due controlli di fondo per la bilancia bianca ottima (grigio naturale) del monoscopio. Mettete il controllo dell'immagine a masimo e girate il controllo della luminosità in senso orario completamente. Osservate lo schermo e regolate i controlli di pilota per ottenere la bilancia bianca ottima.
7. Ripetete le fase 1 a 6 qualche volta.

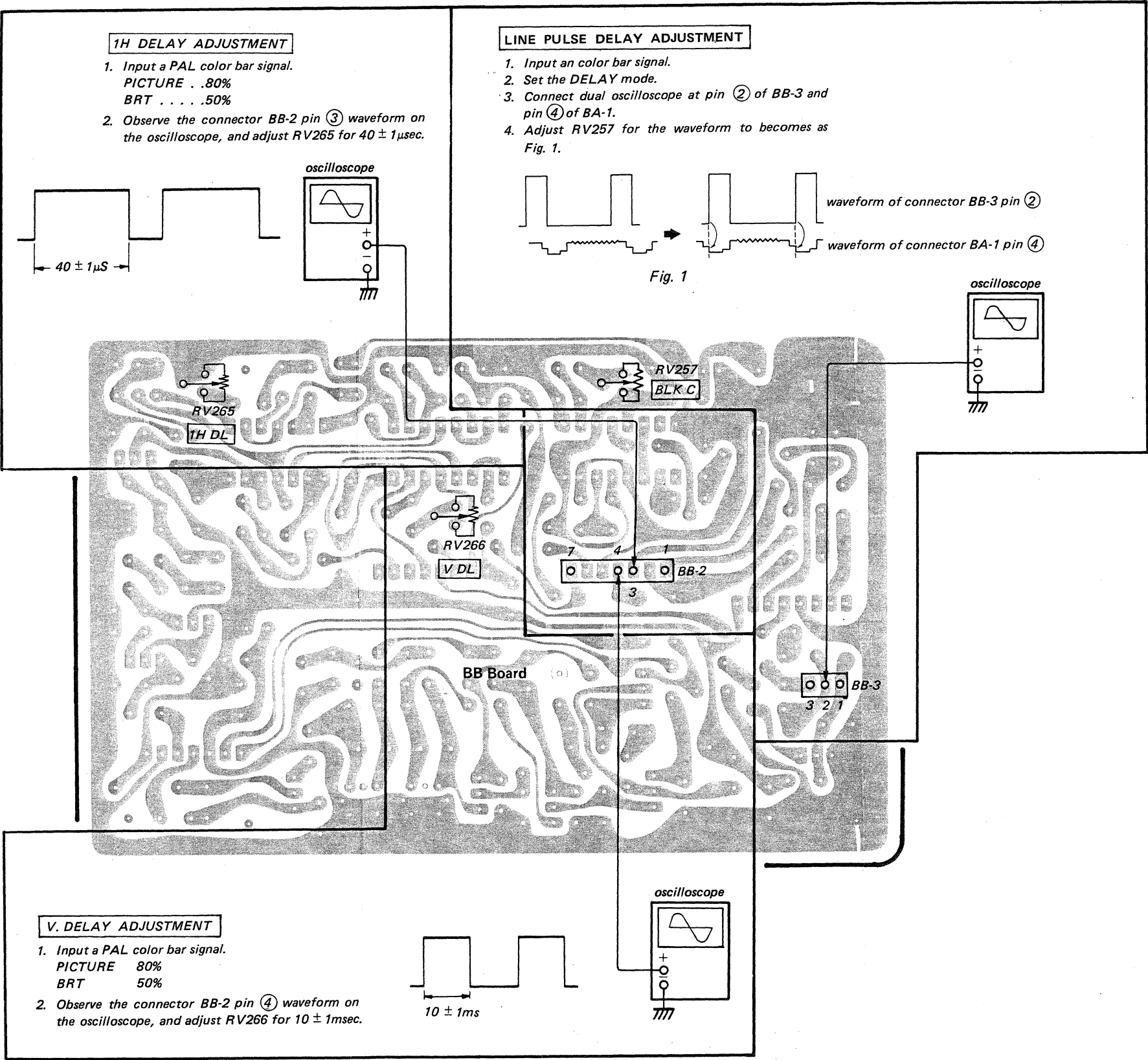


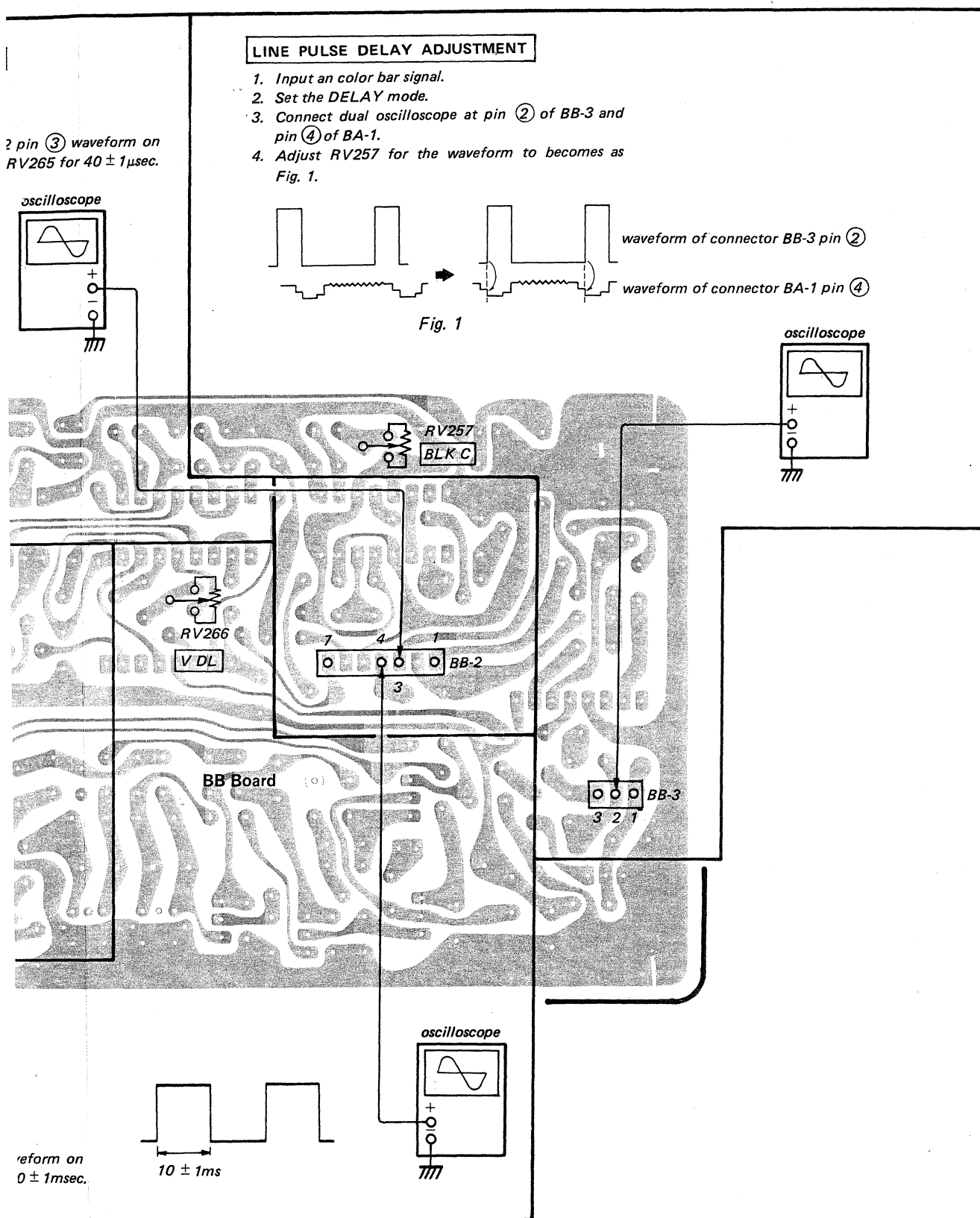
SECTION 4
CIRCUIT ADJUSTMENTS

- Note: (1) TEST EQUIPMENT REQUIRED
- 1. Oscilloscope
 - 2. Digital multimeter
 - 3. Color-bar/pattern generator
- (2) INPUT SIGNAL
- When making these adjustments, supply a color-bar or an off-air signal.
- (3) These adjustment should be performed with the rated power supply voltage unless otherwise noted.
- (4) CIRCUIT ADJUSTMENTS

Adjustment	Circuit Board	Page
1H DELAY V. DELAY LINE PULSE DELAY	BB	4-1(E)~ 4-2(E)
SUB CONTRAST SECAM COLOR LEVEL	HA	4-3(E)
ANT PAL SUB COLOR APC KILLER POINT CHROMA TRAP SECAM (ID) SECAM (B-Y) BAT ACC	BA	4-4(E)~ 4-6(E)
POWER SUPPLY OPERATION BATTERY PROTECTOR	FB	4-7(E)
+B ADJ BLANKING OPERATION CHECK H BLANKING H FREQ V LINE UNDER SCAN, V SIZE V SIZE V CENT	DA	4-7(E)~ 4-9(E)

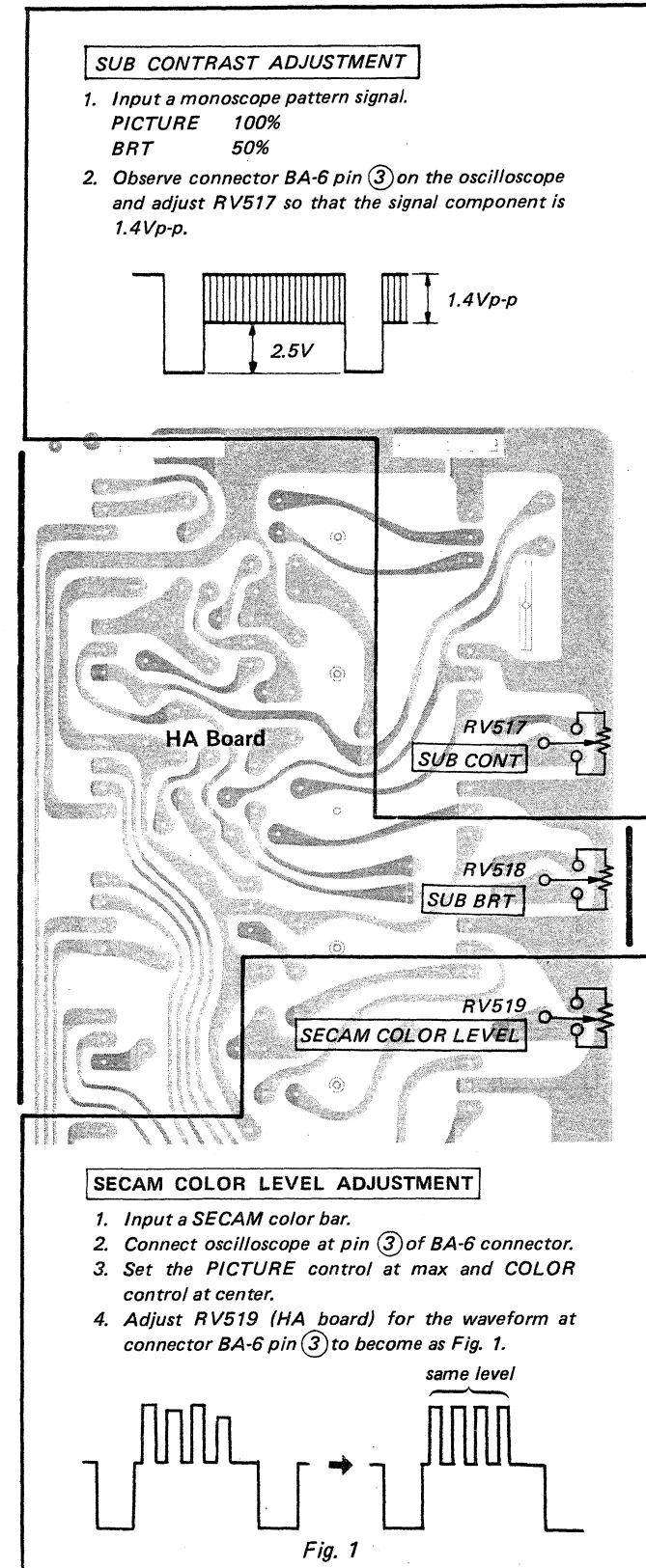
4-1. BB BOARD ADJUSTMENT





4-2(E)

4-2. HA BOARD ADJUSTMENTS

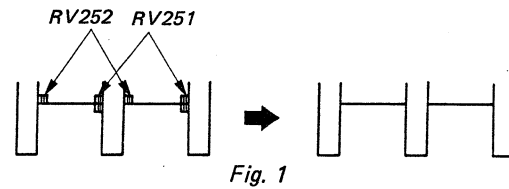


4-3(E)

4-3. BA BOARD ADJUSTMENTS

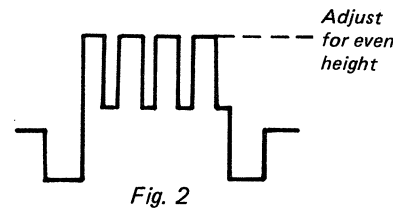
ANT PAL ADJUSTMENT

1. Input a PAL special color bar.
2. Connect an oscilloscope to pin ③ of BA-6 connector.
3. Set the COLOR control at center.
4. Adjust RV251 and RV252 for the waveform at connector BA-6 pin ③ to become as Fig. 1.



SUB COLOR ADJUSTMENT

1. Input a PAL color bar signal.
PICTURE 100%
COLOR 50%
2. Adjust RV264 for the waveform at connector BA-6 ③ to become as Fig. 2.

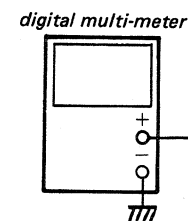


APC ADJUSTMENT

1. Input a PAL color bar signal.
PICTURE 80%
BRIGHT 50%
COLOR 50%
2. Connect a 100kΩ resistor between IC253 pin ⑬ and ground (Killer circuit goes off).
3. Connect a 10μF/25V chemical capacitor between IC253 pin ⑯ and ground.
4. Adjust RV256 to obtain the stable color picture.
5. Disconnect the 100kΩ resistor and chemical capacitor.

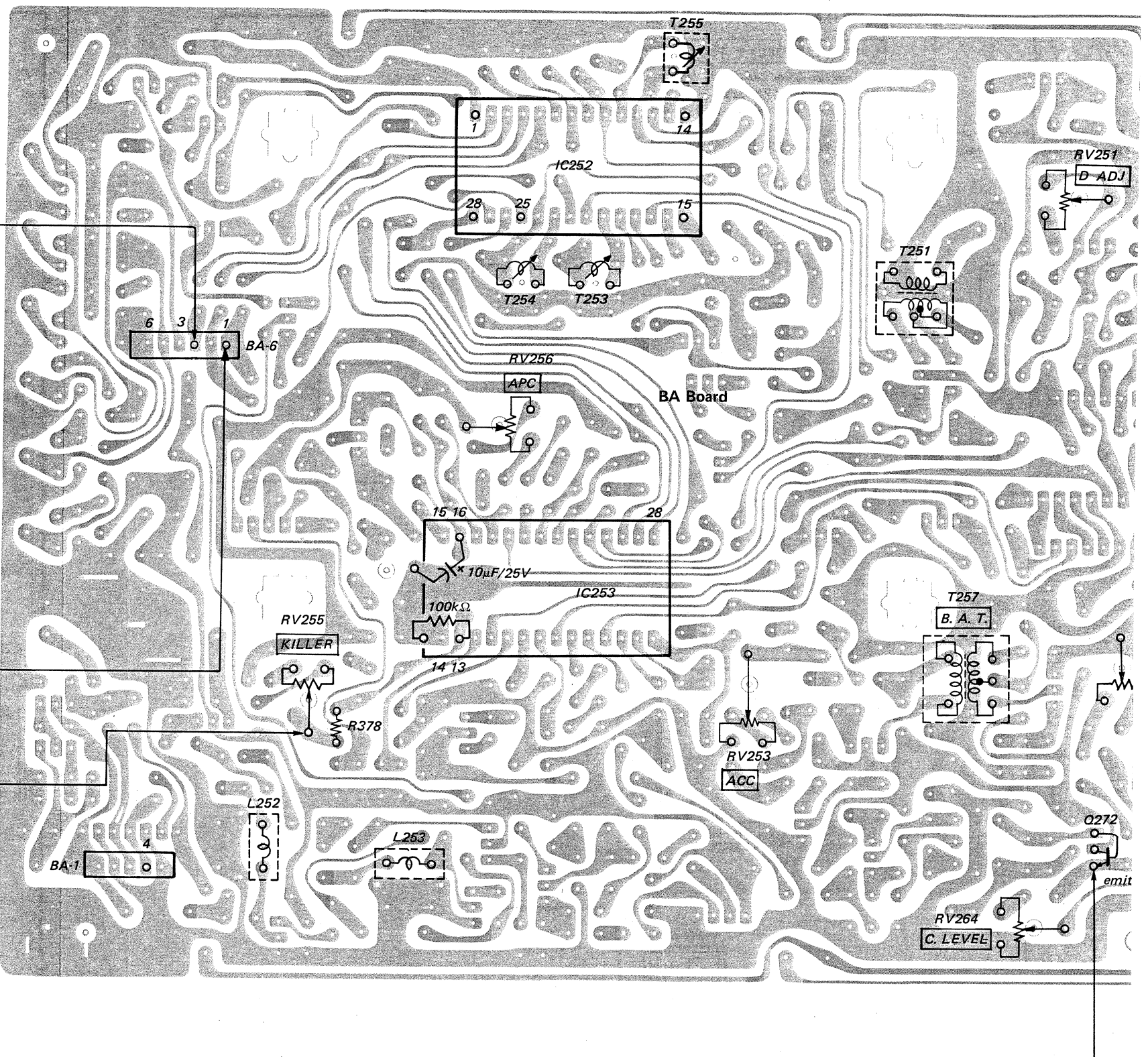
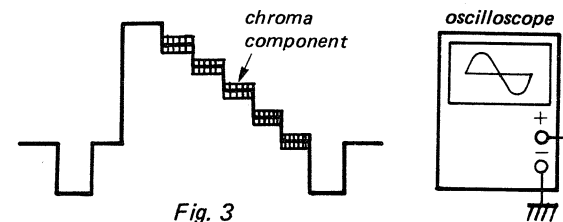
KILLER POINT ADJUSTMENT

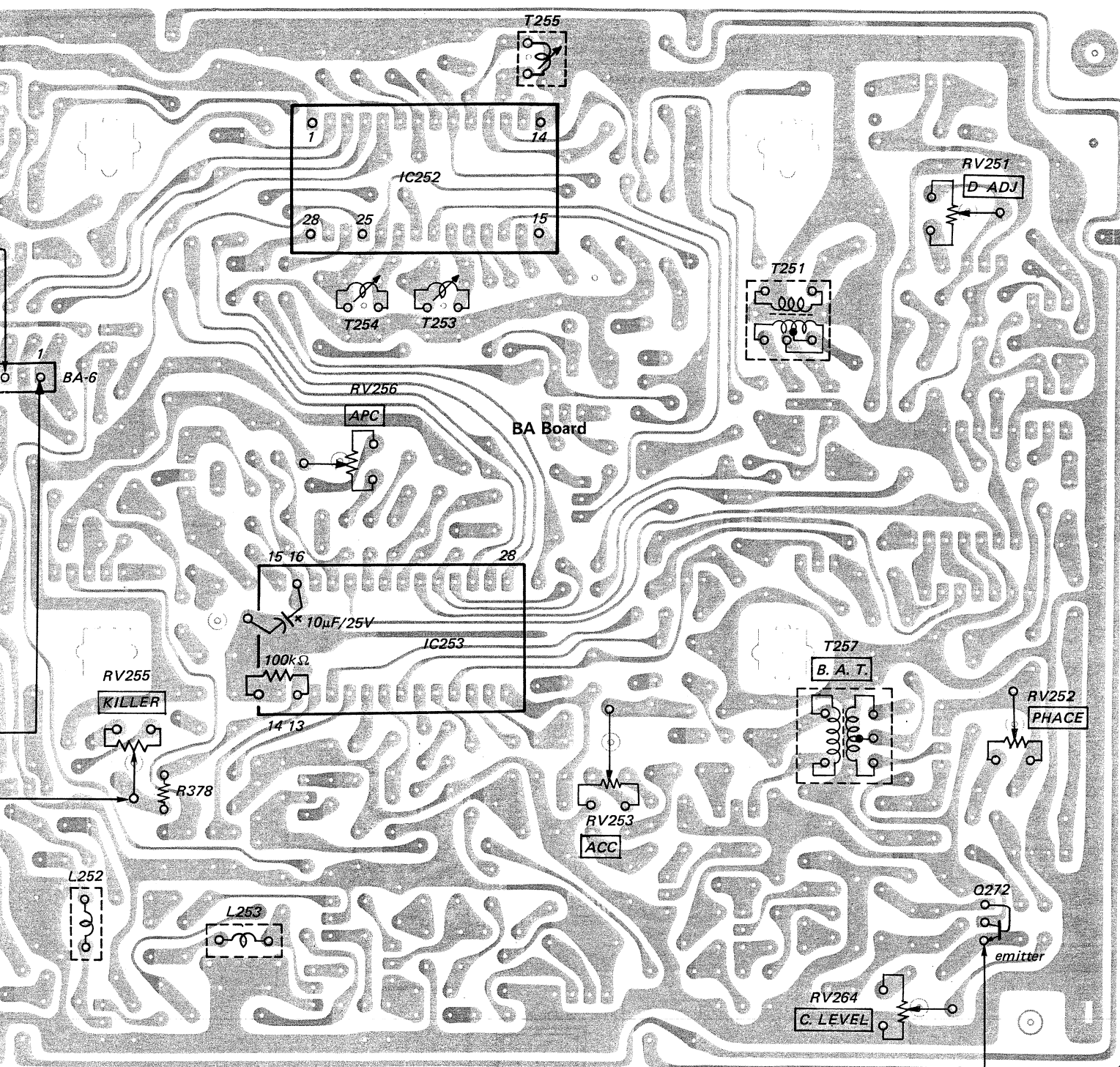
1. Tune in an off-air signal.
2. Connect digital multimeter between R255 and R378.
3. Adjust R255 so that the voltage is 8.3V dc.



CHROMA TRAP ADJUSTMENT

1. Input a SECAM color bar signal.
PICTURE 80%
BRIGHT 50%
2. Observe connector BA-6 pin ① waveform on the oscilloscope and adjust L253 for minimum chroma component.
3. Input a PAL color bar signal.
4. Observe connector BA-6 pin ① waveform on the oscilloscope and adjust L252 for minimum chroma component.





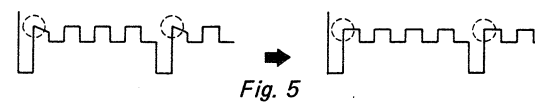
4-5(E)

SECAM ADJUSTMENT (ID)

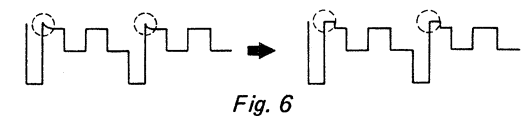
1. Input the SECAM color bar.
2. Connect an digital multimeter to pin 25 of IC252.
3. Adjust T254 so that the digital multimeter reading is maximum.

SECAM ADJUSTMENT (B-Y)

1. Input the SECAM color bar.
2. Connect an oscilloscope to pin 25 of IC252.
3. Adjust T253 for the waveform at pin 25 of IC252 to become as Fig. 5.

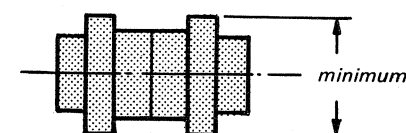


4. Connect an oscilloscope to pin 1 of BA-6 connector.
5. Adjust T255 for the waveform at connector BA-6 pin 1 to become as Fig. 6.



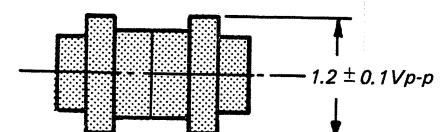
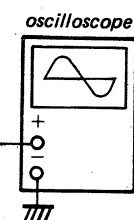
BAT ADJUSTMENT

1. Input a PAL color bar signal.
 PICTURE 80%
 BRIGHT 50%
 COLOR 50%
2. Observe Q272 (E) waveform on the oscilloscope and adjust T257 for minimum chroma component.



ACC ADJUSTMENT 1

1. Input a PAL color bar signal.
 PICTURE 80%
 BRIGHT 50%
 COLOR 50%
2. Observe Q272 (E) waveform on the oscilloscope and adjust RV253 so that the signal component is $1.2 \pm 0.1V_{p-p}$.



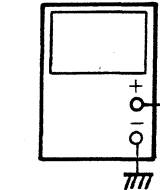
4-6(E)

4-4. DA AND FB BOARD ADJUSTMENTS

BLANKING OPERATION CHECK

1. Input the monoscope signal.
2. Connect an digital multimeter to TP61.
3. Confirm that the BLANKING circuit operate (the raster disappears) by adding 24.0 ± 0.1 V DC to TP61.

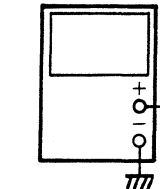
digital multi-meter



+B ADJUSTMENT

1. Input the monoscope signal.
2. Set the PICTURE control at 80% and each control at 50%.
3. Connect an digital multimeter to TP91.
4. Adjust RV807 so that the voltage is 29 ± 0.1 V.

digital multi-meter



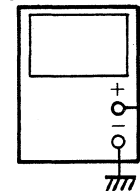
POWER SUPPLY OPERATION CHECK

1. Input a monoscope signal.
2. Connect a digital multi-meter to connector DA-2 pin ①.
3. Adjust RV610 for 15.0 ± 0.2 V DC.

BATTERY PROTECTOR ADJUSTMENT

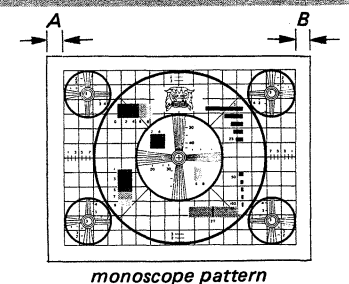
1. Input a 12V DC.
2. Connect a digital multimeter to connector DA-2 pin ①.
3. Adjust RV611 so that voltage $10.2 - 10.3$ V DC.
4. Confirm that the battery protector operate.

digital multi-meter

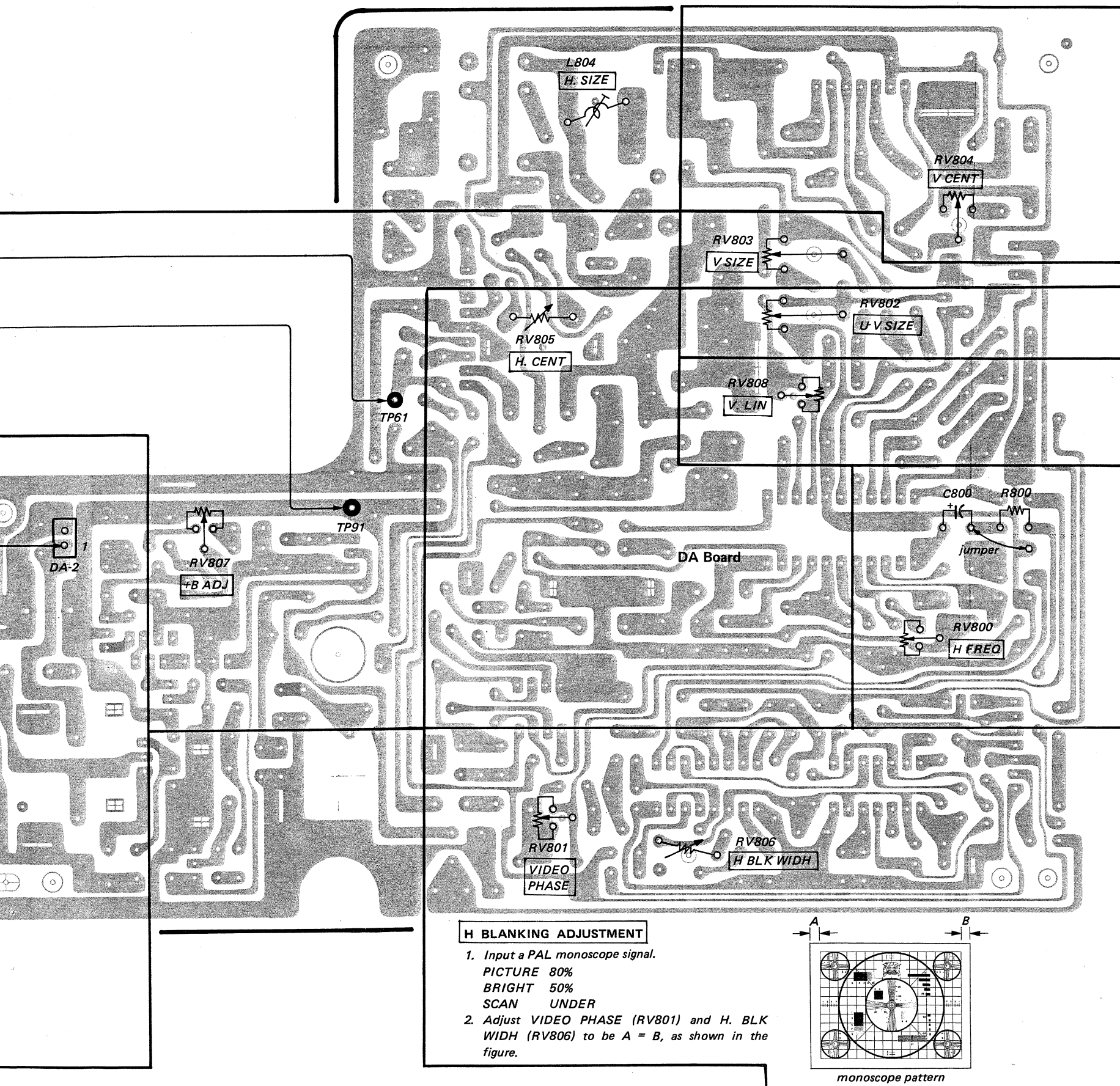


H BLANKING ADJUSTMENT

1. Input a PAL monoscope signal.
PICTURE 80%
BRIGHT 50%
SCAN UNDER
2. Adjust VIDEO PHASE (RV801) and H. BLK WIDTH (RV806) to be $A = B$, as shown in the figure.

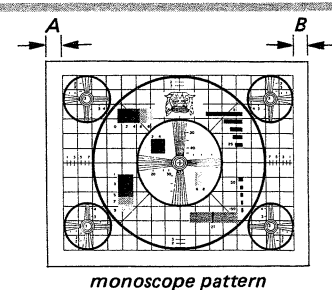


monoscope pattern



H. BLANKING ADJUSTMENT

1. Input a PAL monoscope signal.
PICTURE 80%
BRIGHT 50%
SCAN UNDER
2. Adjust VIDEO PHASE (RV801) and H. BLK WIDH (RV806) to be A = B, as shown in the figure.

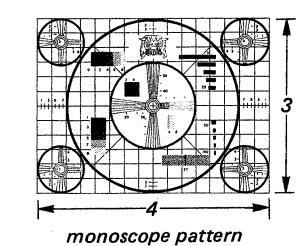


V. CENT ADJUSTMENT

1. Input a PAL monoscope signal.
PICTURE 80%
BRIGHT 50%
2. Adjust with V. CENT (RV804) so that picture is centered.

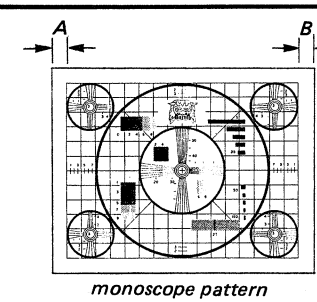
V. SIZE ADJUSTMENT

1. Input a PAL monoscope signal.
PICTURE 80%
BRIGHT 50%
2. Set the V. SIZE (RV803) to obtain a suitable picture.



UNDER-SCAN V. SIZE ADJUSTMENT

1. Input a PAL monoscope signal.
PICTURE .80%
BRIGHT .50%
SCAN . . . UNDER
2. Adjust UN V. SIZE (RV802) so that the monoscope pattern of H. SIZE and V. SIZE is 4:3.

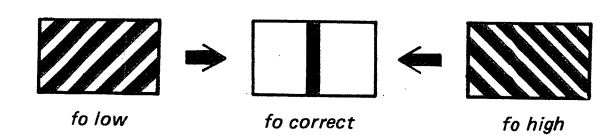


V. LINE ADJUSTMENT

1. Input a PAL monoscope signal.
PICTURE 80%
BRIGHT 50%
2. Adjust V. LINE (RV808) so that the monoscope pattern of A and B is same scal.

H. FREQ ADJUSTMENT

1. Input a PAL monoscope signal.
PICTURE 80%
BRIGHT 50%
2. Connect a jumper between C800 minus side and ground.
3. Adjust with H. FREQ (RV800) as shown in figure.



SEZIONE 4
REGOLAZIONE DI CIRCUITO

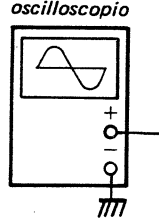
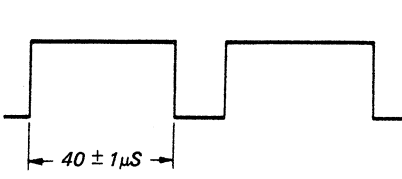
- Nota: (1) APPARECCHIO DI PROVA RICHIESTO
1. Oscilloscopio
2. Multimetro digitale
3. Generatore di color-bar/pattern
- (2) SEGNALE D'INGRESSO
Durante queste regolazioni, fornite un color-bar o un segnale di off-air.
- (3) Queste regolazioni devono essere effettuate dal voltaggio fornito di potenza nominale se non notato altrimenti.
- (4) REGOLAZIONI DI CIRCUITO

Regolazioni	Quadro di circuit	Pagina
IH DELAY (Ritardo orizzontale) V. DELAY (Ritardo verticale) LINE PULSE DELAY (Ritardo d'impulso lineare)	BB	4-1(I)~ 4-2(I)
SUB CONTRAST SECAM COLOR LEVEL (Livello del colore Secam)	HA	4-3(I)
ANT PAL COLOR SUB CONTROL APC (controllo automatico di fase) KILLER POINT (Punto di riduttore) CHROMA TRAP (Centro di cattura cromatico) SECAM (ID) SECAM (B-Y) BAT ACC	BA	4-4(I)~ 4-6(I)
POWER SUPPLY OPERATION (Operazione per alimentare potenza) BATTERY PROTECTOR (Prottettore di batteria) + B ADJ (Regolazione + B) BLANKING OPERATION (Cancellazione) CHECK (Verificazione) H. BLANKING (Cancellazione orizzontale) H. FREQ (Frequenza orizzontale) V LINE (Linearità orizzontale) UNDER SCAN. V SIZE (Sotto Esplosivo, misura verticale) V CENT (Centro verticale)	FB DA	4-7(I) 4-8(I)~ 4-9(I)

4-1. REGOLAZIONI DEL QUADRO BB

1H DELAY ADJUSTMENT (Regolazione di ritardo)

- Immettete un segnale di color bar PAL.
Immagine 80%
Luminosità 50%
- Osservate la forma d'onda del connettore BB-2 pin ③ sull'oscilloscopio, e regolate RV265 per 40 ± 1 micro sec.



LINE PULSE DELAY ADJUSTMENT (Regolazione del ritardo d'impulso lineare)

- Immettete un segnale di color-bar.
- Selezionate il modo di ritardo.
- Collegate un'oscilloscopio doppio allo spillo ② di BB-3 e spillo ④ di BA-1.
- Regolate RV257 in modo che la forma d'onda diventi come mostrato nella Fig. 1.

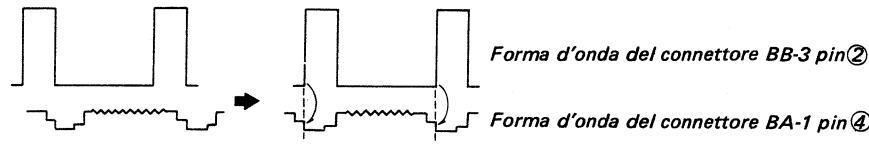
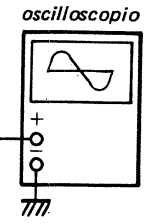
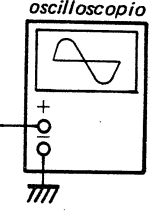
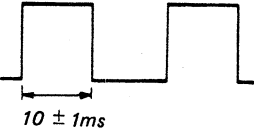


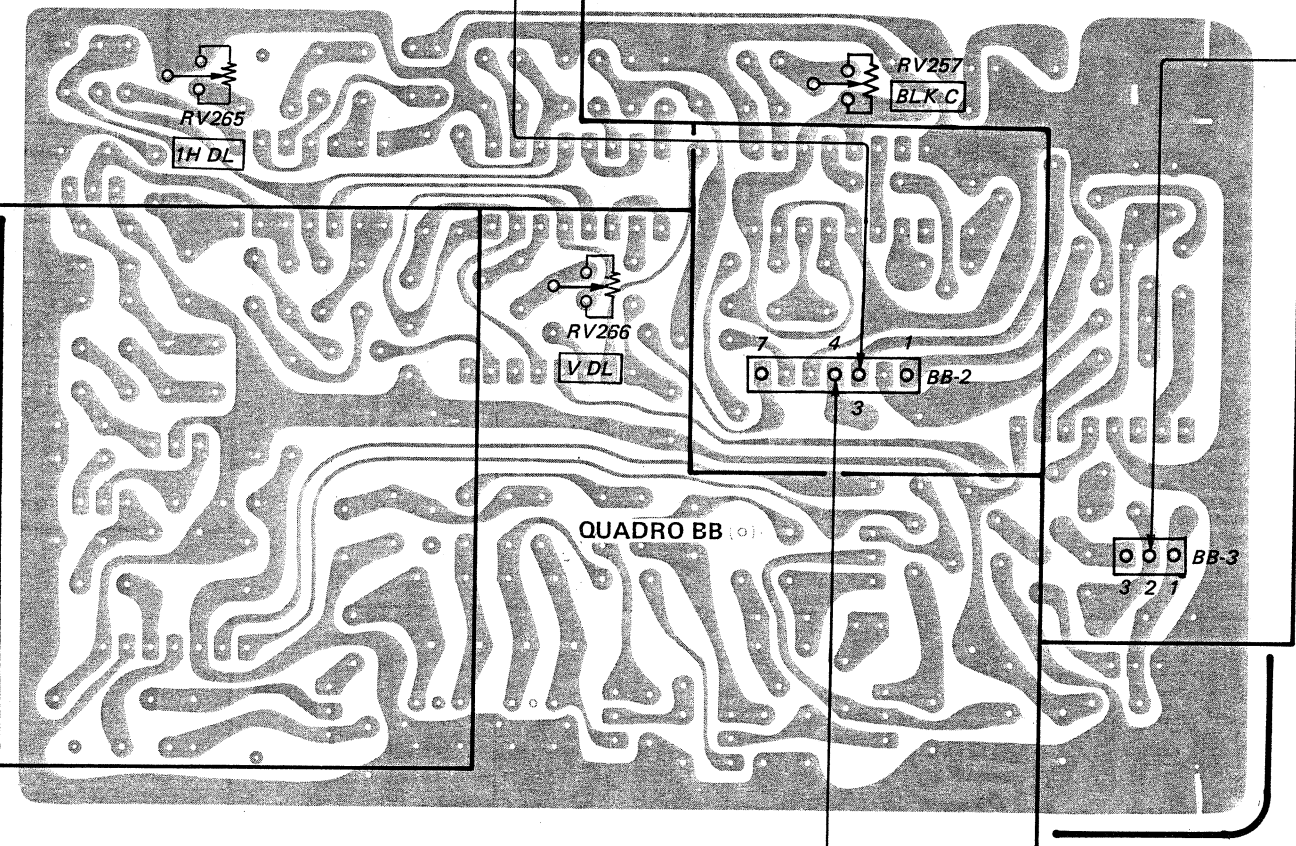
Fig. 1



V DELAY ADJUSTMENT (Regolazione del ritardo verticale)

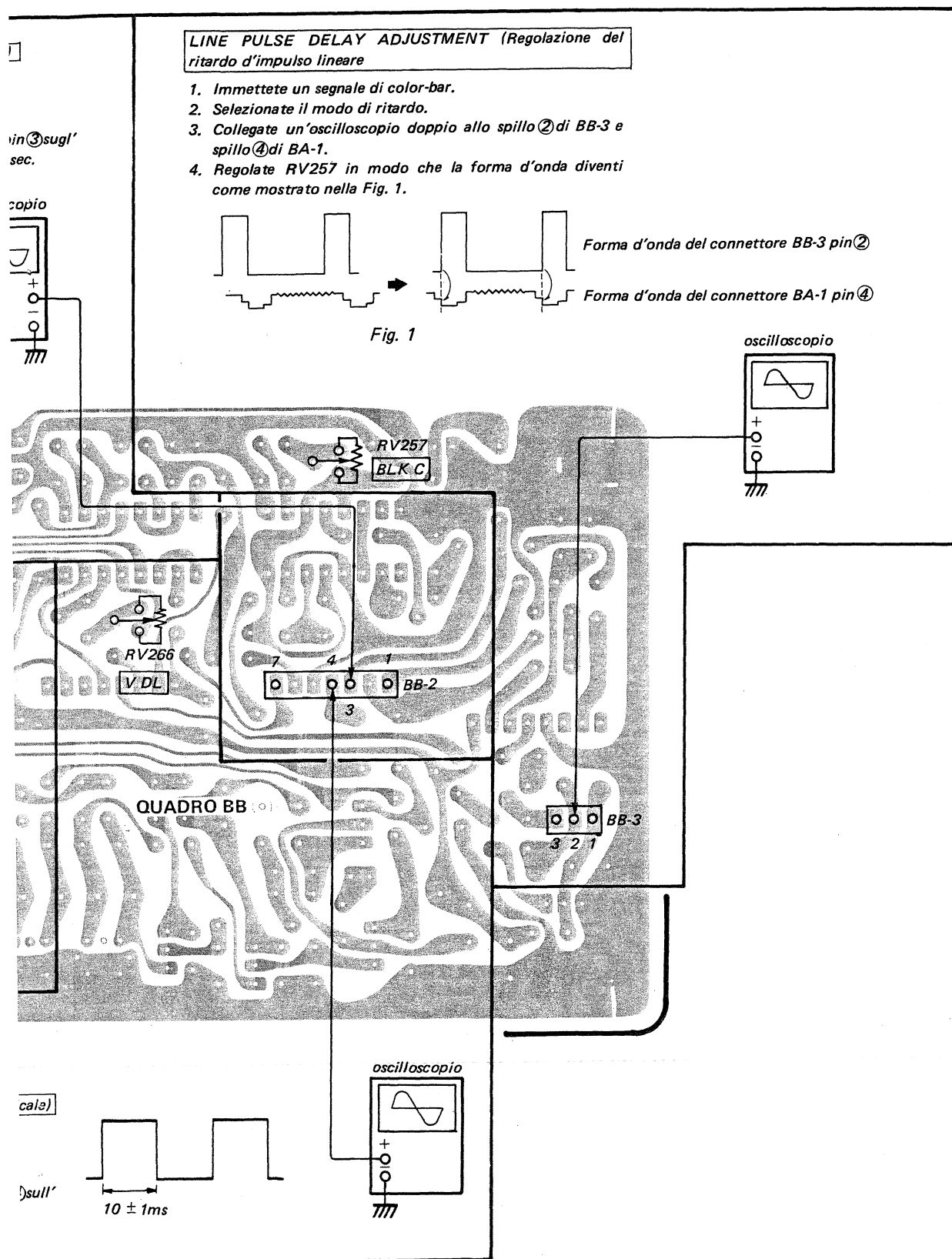
- Immettete un segnale di color bar PAL.
Immagine 80%
Luminosità 50%
- Osservate la forma d'onda del connettore BB-2 pin ④ sull'oscilloscopio, e regolate RV266 per 10 ± 1 m sec.



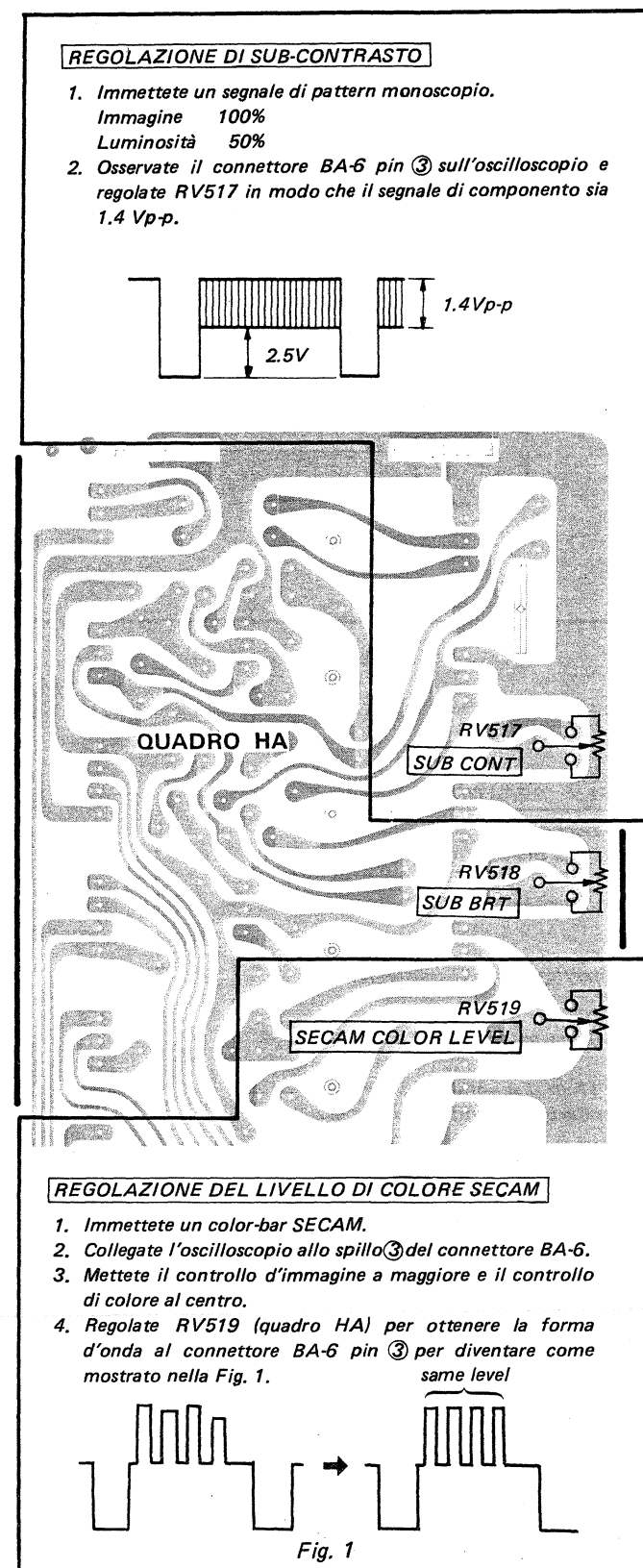


4-2.

R
1.
2.
RE
1.
2.
3.
4.



4-2. REGOLAZIONE DEL QUADRO HA



4-3. REGOLAZIONI DI QUADRO BA

Regolazione di ANT PAL

1. Immettete un color-bar particolare di PAL.
2. Collegate un oscilloscopio allo spillo ③ del connettore BA-6.
3. Mettete il controllo di colore al centro.
4. Regolate RV251 e RV252 in modo che la forma d'onda sul connettore BA-6 pin 3 diventi come mostrato nella Fig. 1.

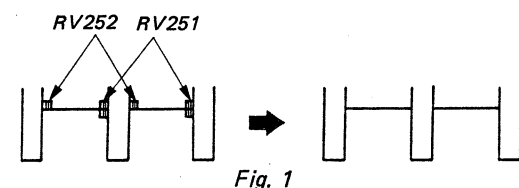


Fig. 1

Regolazione di SUB color

1. Immettete un segnale di color bar PAL.
Immagine 100%
Colore 50%
2. Regolate RV264 in modo che la forma d'onda sul connettore BA-6 pin 3 diventi come mostrato nella Fig. 2.

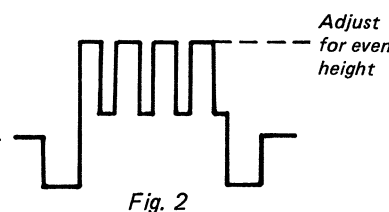


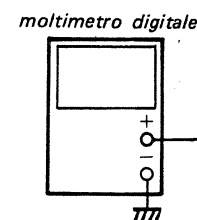
Fig. 2

Regolazione di controllo automatico di fase

1. Immettete un segnale di color-bar PAL.
Immagine 80%
Luminosità 50%
Color 50%
2. Collegate un resistenza di 100 k ohms fra IC253 spillo ⑬ e la massa. (Circuito di riduttore si spegne)
3. Collegate un condensatore chimicale di ⑩ microF/25V fra IC253 pin ⑮ e la massa.
4. Regolate RV256 per ottenere l'immagine cromatico stabilita.
5. Desinserite la resistenza di 100 k ohms e il condensatore chimicale.

Regolazione del punto di riduttore

1. Sintonizzate un segnale off-air.
2. Collegate il multimetro digitale fra R255 e R378.
3. Regolate R255 in modo che il voltaggio sia 8.3 V dc.



Regolazione di centro di cattura cromatico

1. Immettete un segnale di color bar SECAM.
Immagine 80%
Luminosità 50%
2. Osservate la forma d'onda dello spillo ① del connettore BA-6 sull'oscilloscopio e regolate L253 per il componente cromatico minore.
3. Immettete un segnale di color bar PAL.
4. Osservate la forma d'onda dello spillo ① del connettore BA-6 sull'oscilloscopio e regolate L252 per il componente cromatico minore.

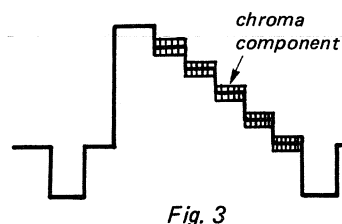
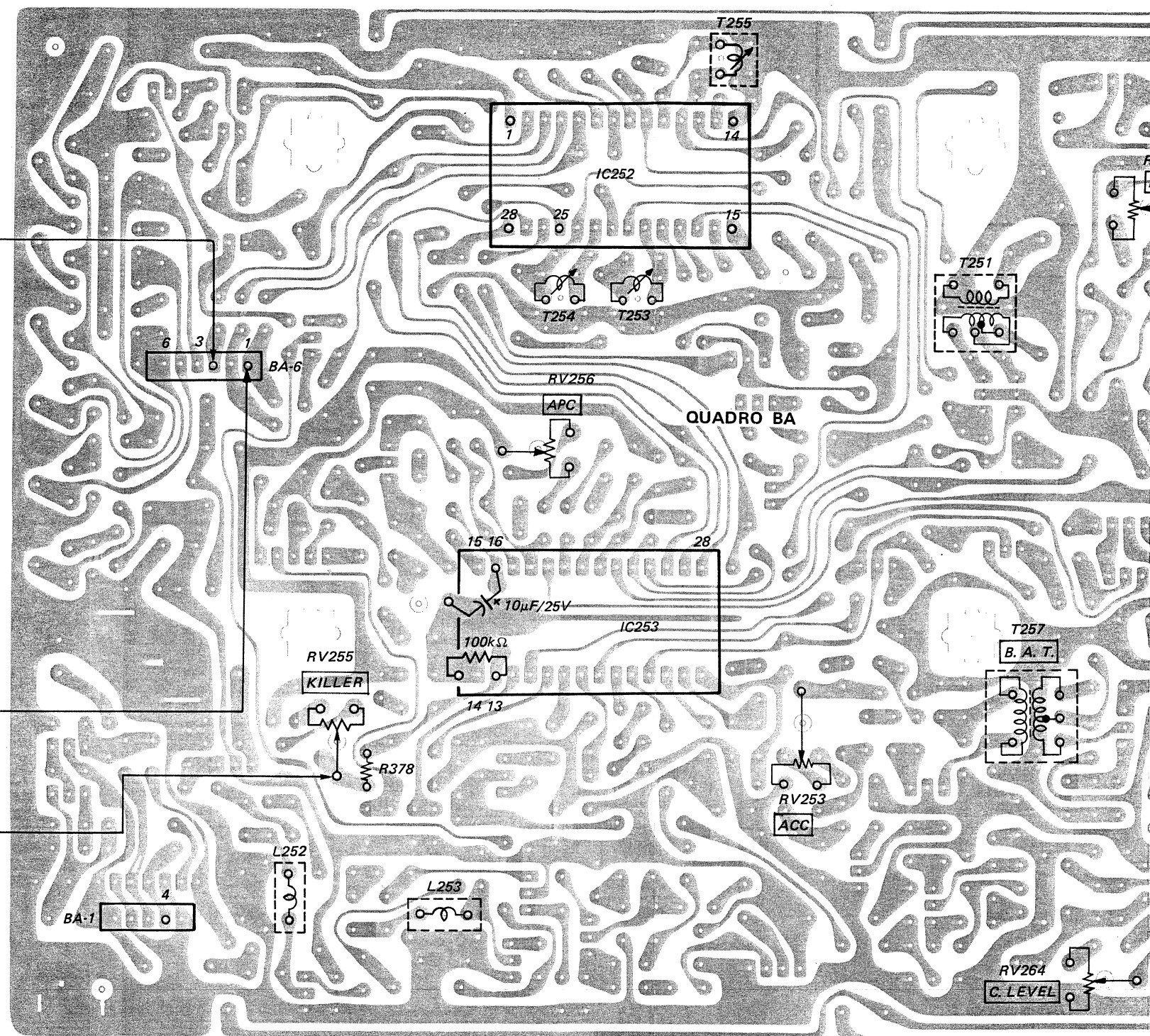
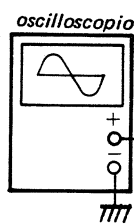
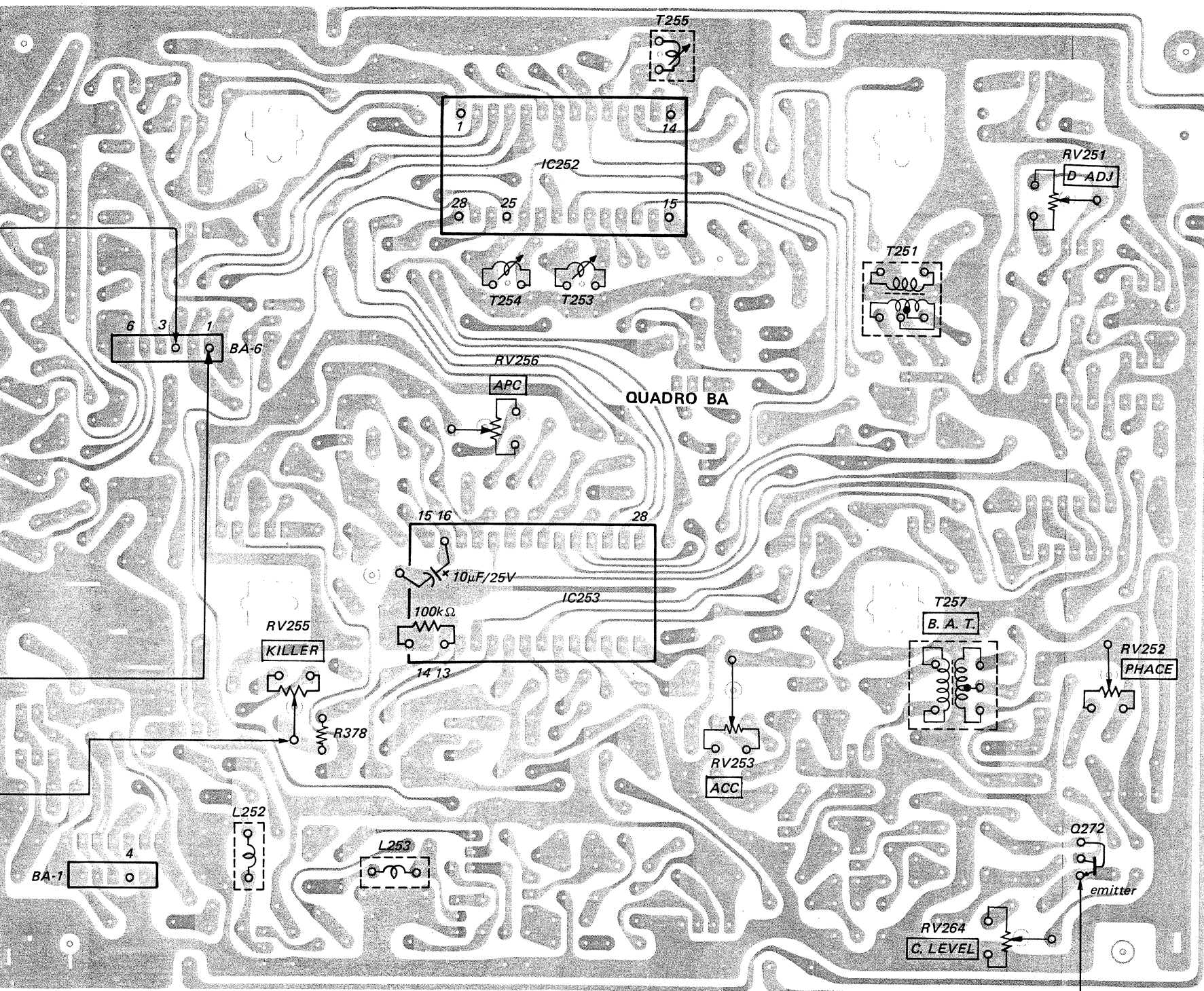


Fig. 3





Regolazione SECAM (D)

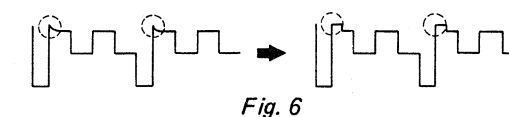
1. Immettete un color bar SECAM.
2. Collegate un multimetro digitale allo spillo ② del IC252.
3. Regolate T254 in modo che la lettura del multimetro digitale sia maggiore.

Regolazione SECAM (B - Y)

1. Immettete il color bar di SECAM.
2. Collegate un oscilloscopio allo spillo ② del IC252.
3. Regolate T253 affinché la forma d'onda sullo spillo ② del IC252 diventi come mostrato nella Fig. 5.

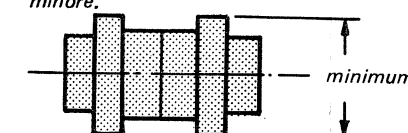


4. Collegate un oscilloscopio allo spillo ① del connettore BA-6.
5. Regolate T255 affinché la forma d'onda del connettore BA-6 pin ① diventi come mostrato nella Fig. 6.



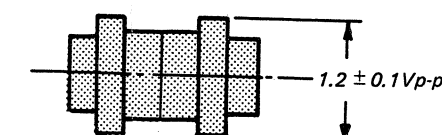
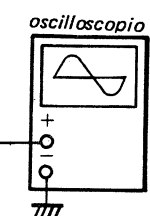
Regolazione di trasformatore amplificatore di sincronismo

1. Immettete un segnale di color bar PAL.
Immagine 80%
Luminosità 50%
Colore 50%
2. Osservate la forma d'onda del Q272 E sull'oscilloscopio e regolate T257 per ottenere un componente cromatico minore.



Regolazione 1 di controllo automatico del colore

1. Mettete un segnale di color bar PAL.
Immagine 80%
Luminosità 50%
Colore 50%
2. Osservate la forma d'onda del Q272 (E) sull'oscilloscopio e regolate RV253 in modo che il componente di segnale sia $1.2 \pm 0.1 V_{p-p}$.

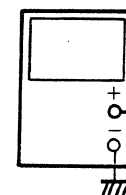


4-4. REGOLAZIONE DEI QUADRI DA E FB

Verificazione dell'operazione di cancellazione

1. Immettete il segnale di monoscopio.
2. Collegate un multimetro digitale a TP61.
3. Accertate che il circuito di cancellazione operi (Trama scomparisce) applicando 24.0 ± 0.1 V DC a TP61.

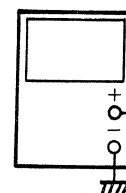
multimetro digitale



Regolazione +B

1. Immettete il segnale di monoscopio.
2. Mettete il controllo dell'immagine a 80% e ogni controllo a 50%.
3. Collegate un multimetro digitale a TP91.
4. Regolate RV807 in modo che il voltaggio sia 29 ± 0.1 V.

multimetro digitale



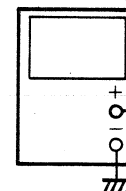
Verificazione dell'operazione d'alimentazione

1. Immettete un segnale di monoscopio.
2. Collegate un multimetro digitale al connettore DA-2 pin ①
3. Regolate RV610 per 15.0 ± 0.2 V DC.

Regolazione del protettore di batteria

1. Alimentate 12 V DC.
2. Collegate un multimetro digitale al connettore DA-2 pin ①
3. Regolate RV611 in modo che il voltaggio sia $10.2 - 10.3$ V DC.
4. Accertate che il protettore di batteria operi.

multimetro digitale



QUADRO FB

RV610
+B ADJ

RV611
BATT ADJ

DA-2

RV807
+B ADJ

TP91

QUADRO DA

C800 R800
jumper

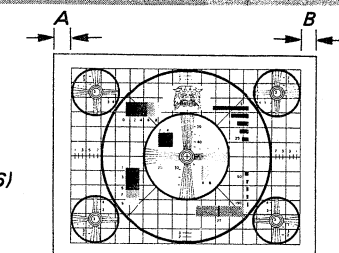
RV800
H FREQ

RV801
VIDEO
PHASE

RV806
H BLK WIDH

Regolazione della cancellazione orizzontale

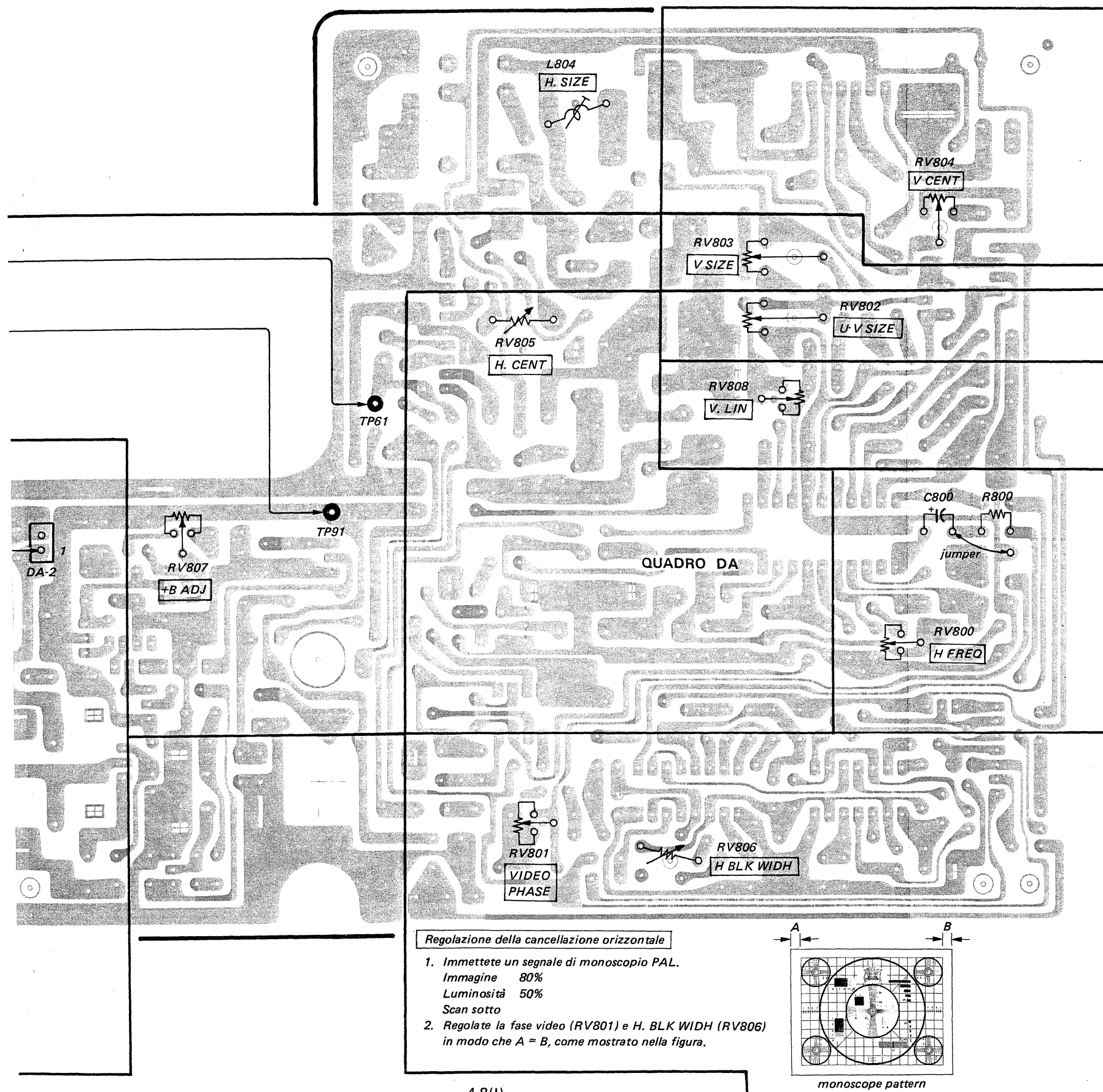
1. Immettete un segnale di monoscopio PAL.
Immagine 80%
Luminosità 50%
Scan sotto
2. Regolate la fase video (RV801) e H. BLK WIDH (RV806) in modo che $A = B$, come mostrato nella figura.



monoscope pattern

4-7(I)

4-8(I)

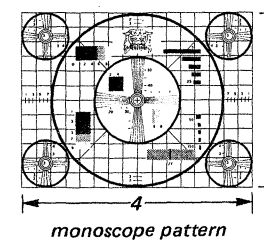


Regolazione di V. CENT

1. Immettete un segnale di mososcopio PAL.
Immagine 80%
Luminosità 50%
2. Regolate per mezzo del V. CENT (RV804) in modo che l'immagine sia centrata.

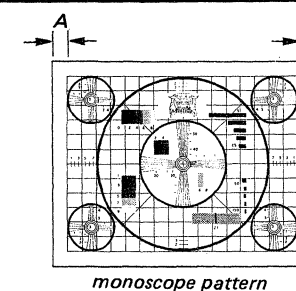
Regolazione del V. SIZE

1. Immettete un segnale di monoscopio PAL.
Immagine 80%
Luminosità 50%
2. Mettete V. SIZE (RV803) per ottenere un'immagine propria.



Regolazione del UNDER SCAN V. SIZE

1. Immettete un segnale di monoscopio PAL.
Immagine 80%
Luminosità 50%
SCAN sotto
2. Regolate UN V. SIZE (RV802) in modo che il pattern di monoscopio del H. SIZE e V. SIZE sia 4:3.

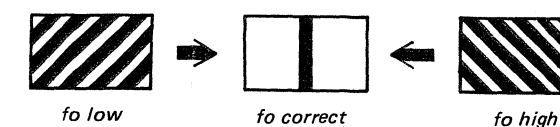


Regolazione del V. SIZE

1. Immettete un segnale di monoscopio PAL.
Immagine 80%
Luminosità 50%
2. Regolate V. LINE (RV808) in modo che A e B del pattern di monoscopio sia stessa misura.

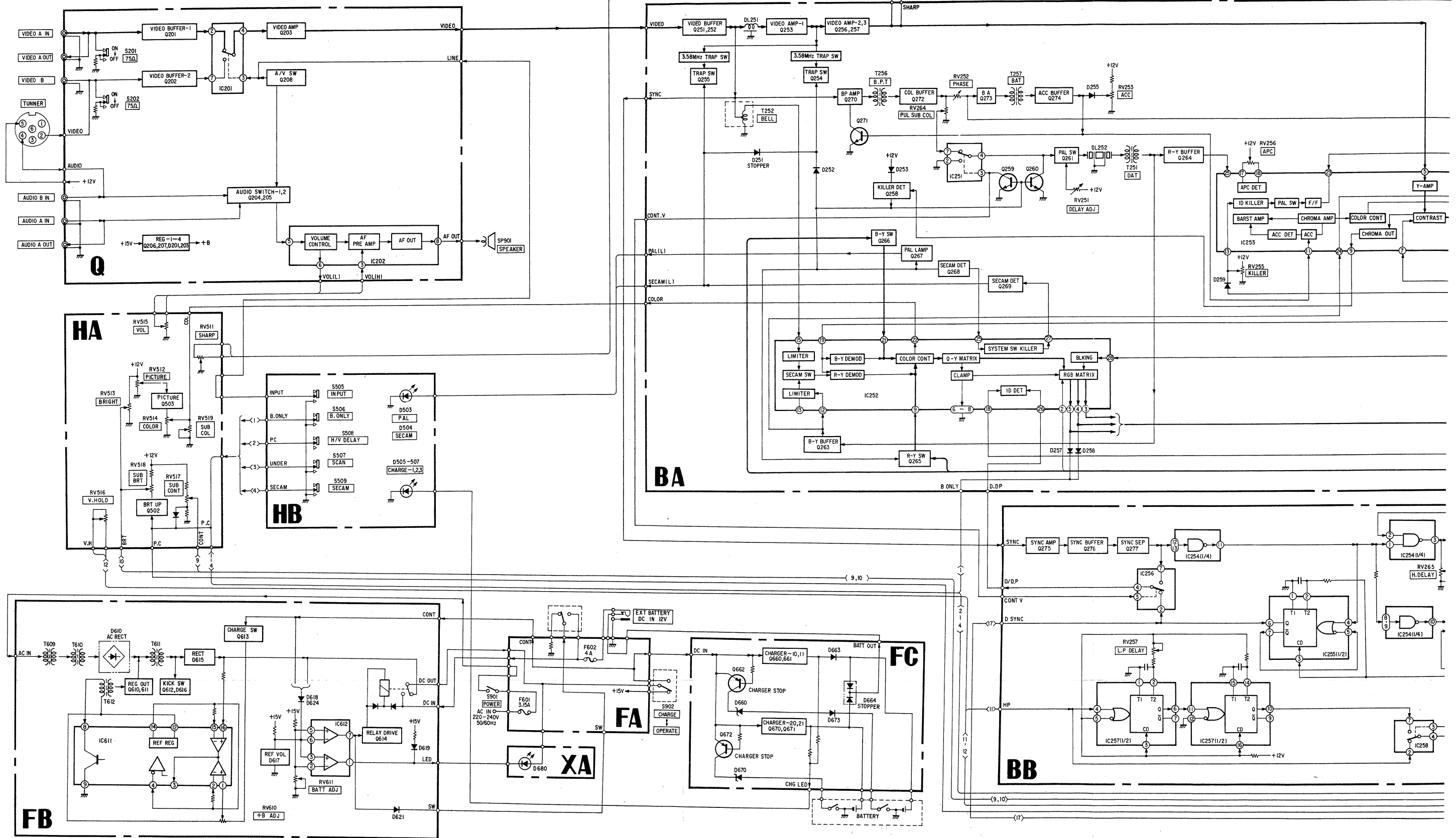
Regolazione del H. FREQ.

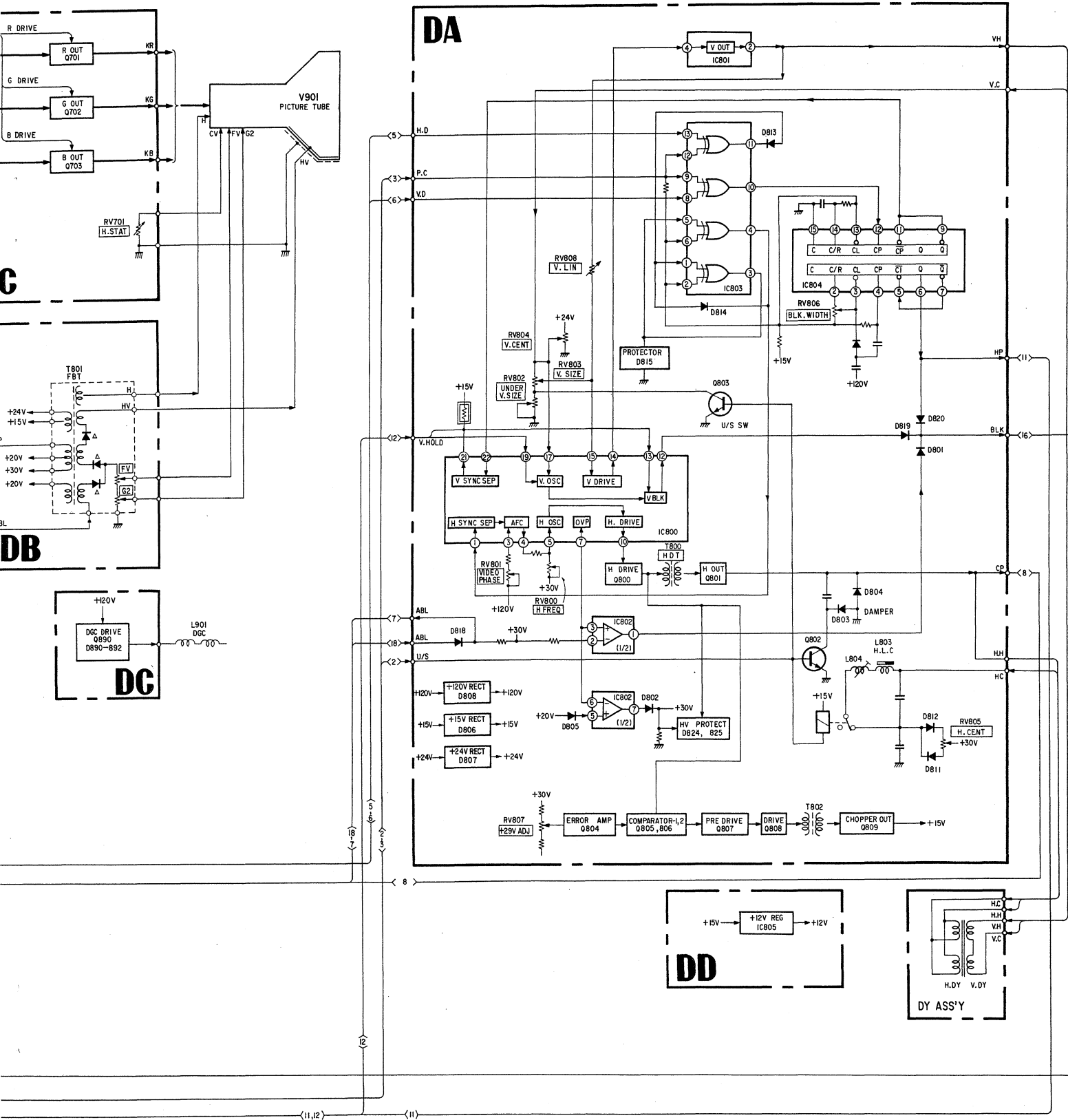
1. Immettete un segnale di monoscopio PAL.
Immagine 80%
Luminosità 50%
2. Collegate un jumper fra C800 parte negativa e la massa.
3. Regolate con H. FREQ. (RV800) come mostrato nella figura.



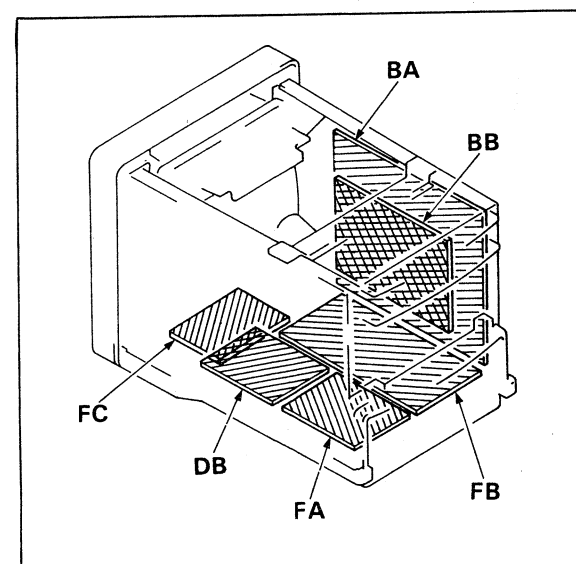
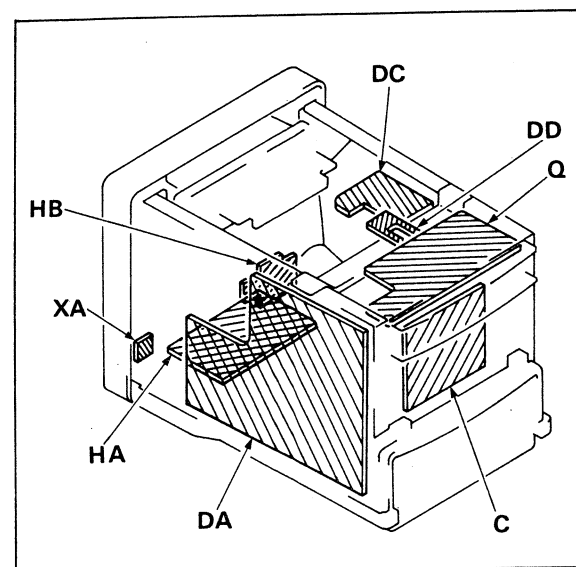
SECTION 5 DIAGRAMS
SEZIONE 5 DIAGRAMMI

5-1. BLOCK DIAGRAM
5-1. SCHEMA A BLOCCH



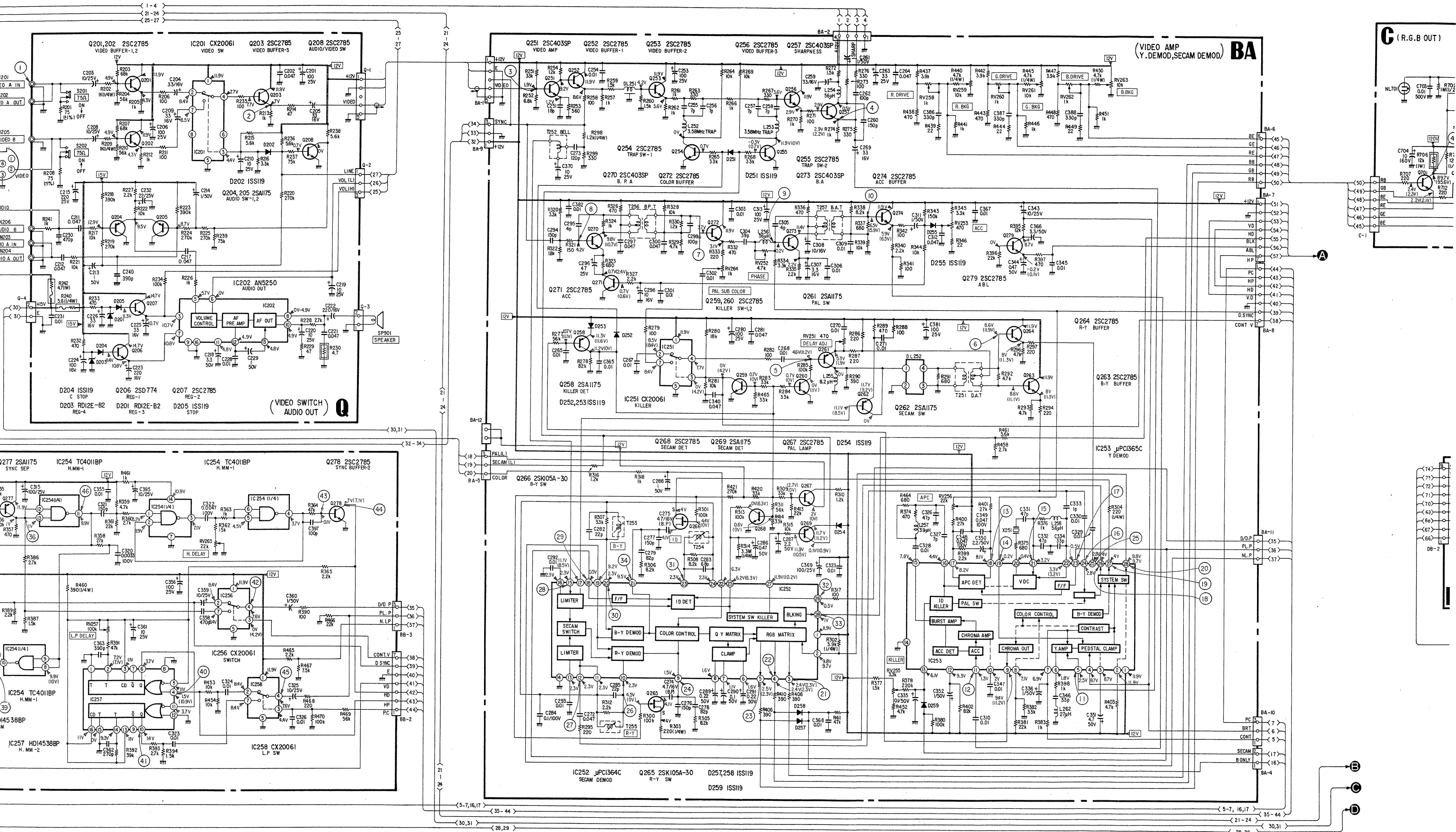


5-2. POSIZIONE PANNELLI CIRCUITI



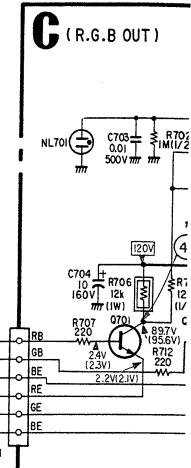
The schematic diagram is organized into several main functional blocks:

- HA (CUSTOMER CONTROL):** Located in the top left, this section includes controls for SHARP, BRIGHT, PICTURE, and SECAM COLOR LEVEL. It features components like Q502, Q503, Q504, and Q505.
- HB (CUSTOMER CONTROL):** Located in the bottom left, this section includes controls for SECAM, PAL, B.ONLY, and H/V DELAY. It features components like D504, D503, D505, and D506.
- BB (H/V MM, H MM SYNC, H P, LP SW):** Located in the bottom left, this section includes controls for H/V MM, H MM SYNC, H P, and LP SW. It features components like D507, D508, D509, and D510.
- VIDEO AND AUDIO PROCESSING:** This central section includes video buffers (Q201, Q202, Q203, Q208), video switches (IC201, IC202), audio amplifiers (IC202, IC203), and various other ICs like Q204, Q205, Q206, Q207, Q208, Q209, Q210, Q211, Q212, Q213, Q214, Q215, Q216, Q217, Q218, Q219, Q220, Q221, Q222, Q223, Q224, Q225, Q226, Q227, Q228, Q229, Q230, Q231, Q232, Q233, Q234, Q235, Q236, Q237, Q238, Q239, Q240, Q241, Q242, Q243, Q244, Q245, Q246, Q247, Q248, Q249, Q250, Q251, Q252, Q253, Q254, Q255, Q256, Q257, Q258, Q259, Q260, Q261, Q262, Q263, Q264, Q265, Q266, Q267, Q268, Q269, Q270, Q271, Q272, Q273, Q274, Q275, Q276, Q277, Q278, Q279, Q280, Q281, Q282, Q283, Q284, Q285, Q286, Q287, Q288, Q289, Q290, Q291, Q292, Q293, Q294, Q295, Q296, Q297, Q298, Q299, Q300, Q301, Q302, Q303, Q304, Q305, Q306, Q307, Q308, Q309, Q310, Q311, Q312, Q313, Q314, Q315, Q316, Q317, Q318, Q319, Q320, Q321, Q322, Q323, Q324, Q325, Q326, Q327, Q328, Q329, Q330, Q331, Q332, Q333, Q334, Q335, Q336, Q337, Q338, Q339, Q340, Q341, Q342, Q343, Q344, Q345, Q346, Q347, Q348, Q349, Q350, Q351, Q352, Q353, Q354, Q355, Q356, Q357, Q358, Q359, Q360, Q361, Q362, Q363, Q364, Q365, Q366, Q367, Q368, Q369, Q370, Q371, Q372, Q373, Q374, Q375, Q376, Q377, Q378, Q379, Q380, Q381, Q382, Q383, Q384, Q385, Q386, Q387, Q388, Q389, Q390, Q391, Q392, Q393, Q394, Q395, Q396, Q397, Q398, Q399, Q400, Q401, Q402, Q403, Q404, Q405, Q406, Q407, Q408, Q409, Q410, Q411, Q412, Q413, Q414, Q415, Q416, Q417, Q418, Q419, Q420, Q421, Q422, Q423, Q424, Q425, Q426, Q427, Q428, Q429, Q430, Q431, Q432, Q433, Q434, Q435, Q436, Q437, Q438, Q439, Q440, Q441, Q442, Q443, Q444, Q445, Q446, Q447, Q448, Q449, Q450, Q451, Q452, Q453, Q454, Q455, Q456, Q457, Q458, Q459, Q460, Q461, Q462, Q463, Q464, Q465, Q466, Q467, Q468, Q469, Q470, Q471, Q472, Q473, Q474, Q475, Q476, Q477, Q478, Q479, Q480, Q481, Q482, Q483, Q484, Q485, Q486, Q487, Q488, Q489, Q490, Q491, Q492, Q493, Q494, Q495, Q496, Q497, Q498, Q499, Q500, Q501, Q502, Q503, Q504, Q505, Q506, Q507, Q508, Q509, Q510, Q511, Q512, Q513, Q514, Q515, Q516, Q517, Q518, Q519, Q520, Q521, Q522, Q523, Q524, Q525, Q526, Q527, Q528, Q529, Q530, Q531, Q532, Q533, Q534, Q535, Q536, Q537, Q538, Q539, Q540, Q541, Q542, Q543, Q544, Q545, Q546, Q547, Q548, Q549, Q550, Q551, Q552, Q553, Q554, Q555, Q556, Q557, Q558, Q559, Q560, Q561, Q562, Q563, Q564, Q565, Q566, Q567, Q568, Q569, Q570, Q571, Q572, Q573, Q574, Q575, Q576, Q577, Q578, Q579, Q580, Q581, Q582, Q583, Q584, Q585, Q586, Q587, Q588, Q589, Q590, Q591, Q592, Q593, Q594, Q595, Q596, Q597, Q598, Q599, Q600, Q601, Q602, Q603, Q604, Q605, Q606, Q607, Q608, Q609, Q610, Q611, Q612, Q613, Q614, Q615, Q616, Q617, Q618, Q619, Q620, Q621, Q622, Q623, Q624, Q625, Q626, Q627, Q628, Q629, Q630, Q631, Q632, Q633, Q634, Q635, Q636, Q637, Q638, Q639, Q640, Q641, Q642, Q643, Q644, Q645, Q646, Q647, Q648, Q649, Q650, Q651, Q652, Q653, Q654, Q655, Q656, Q657, Q658, Q659, Q660, Q661, Q662, Q663, Q664, Q665, Q666, Q667, Q668, Q669, Q670, Q671, Q672, Q673, Q674, Q675, Q676, Q677, Q678, Q679, Q680, Q681, Q682, Q683, Q684, Q685, Q686, Q687, Q688, Q689, Q690, Q691, Q692, Q693, Q694, Q695, Q696, Q697, Q698, Q699, Q700, Q701, Q702, Q703, Q704, Q705, Q706, Q707, Q708, Q709, Q710, Q711, Q712, Q713, Q714, Q715, Q716, Q717, Q718, Q719, Q720, Q721, Q722, Q723, Q724, Q725, Q726, Q727, Q728, Q729, Q730, Q731, Q732, Q733, Q734, Q735, Q736, Q737, Q738, Q739, Q740, Q741, Q742, Q743, Q744, Q745, Q746, Q747, Q748, Q749, Q750, Q751, Q752, Q753, Q754, Q755, Q756, Q757, Q758, Q759, Q760, Q761, Q762, Q763, Q764, Q765, Q766, Q767, Q768, Q769, Q770, Q771, Q772, Q773, Q774, Q775, Q776, Q777, Q778, Q779, Q780, Q781, Q782, Q783, Q784, Q785, Q786, Q787, Q788, Q789, Q790, Q791, Q792, Q793, Q794, Q795, Q796, Q797, Q798, Q799, Q800, Q801, Q802, Q803, Q804, Q805, Q806, Q807, Q808, Q809, Q810, Q811, Q812, Q813, Q814, Q815, Q816, Q817, Q818, Q819, Q820, Q821, Q822, Q823, Q824, Q825, Q826, Q827, Q828, Q829, Q830, Q831, Q832, Q833, Q834, Q835, Q836, Q837, Q838, Q839, Q840, Q841, Q842, Q843, Q844, Q845, Q846, Q847, Q848, Q849, Q850, Q851, Q852, Q853, Q854, Q855, Q856, Q857, Q858, Q859, Q860, Q861, Q862, Q863, Q864, Q865, Q866, Q867, Q868, Q869, Q870, Q871, Q872, Q873, Q874, Q875, Q876, Q877, Q878, Q879, Q880, Q881, Q882, Q883, Q884, Q885, Q886, Q887, Q888, Q889, Q890, Q891, Q892, Q893, Q894, Q895, Q896, Q897, Q898, Q899, Q900, Q901, Q902, Q903, Q904, Q905, Q906, Q907, Q908, Q909, Q910, Q911, Q912, Q913, Q914, Q915, Q916, Q917, Q918, Q919, Q920, Q921, Q922, Q923, Q924, Q925, Q926, Q927, Q928, Q929, Q930, Q



5-8(E)

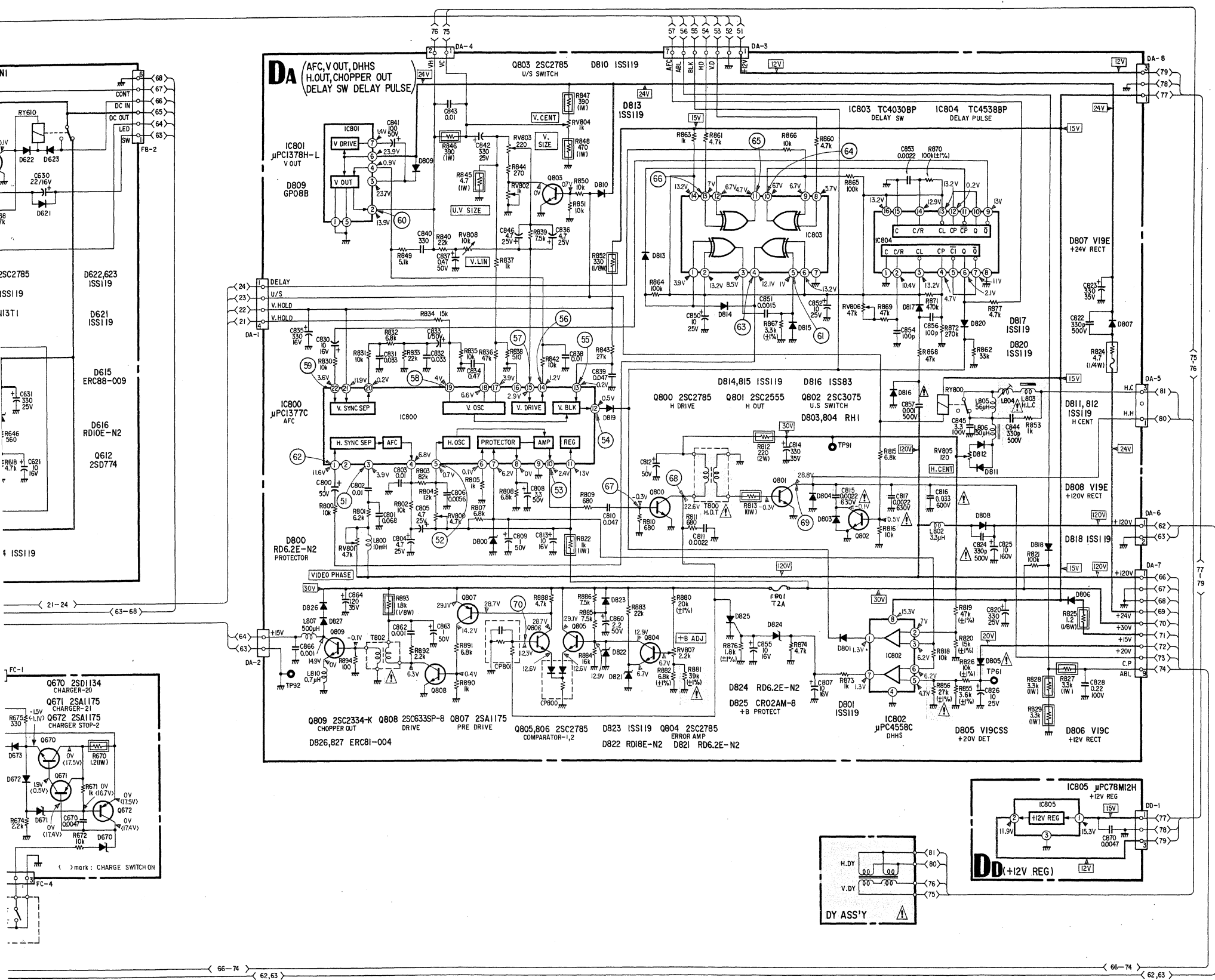
5-9(E)



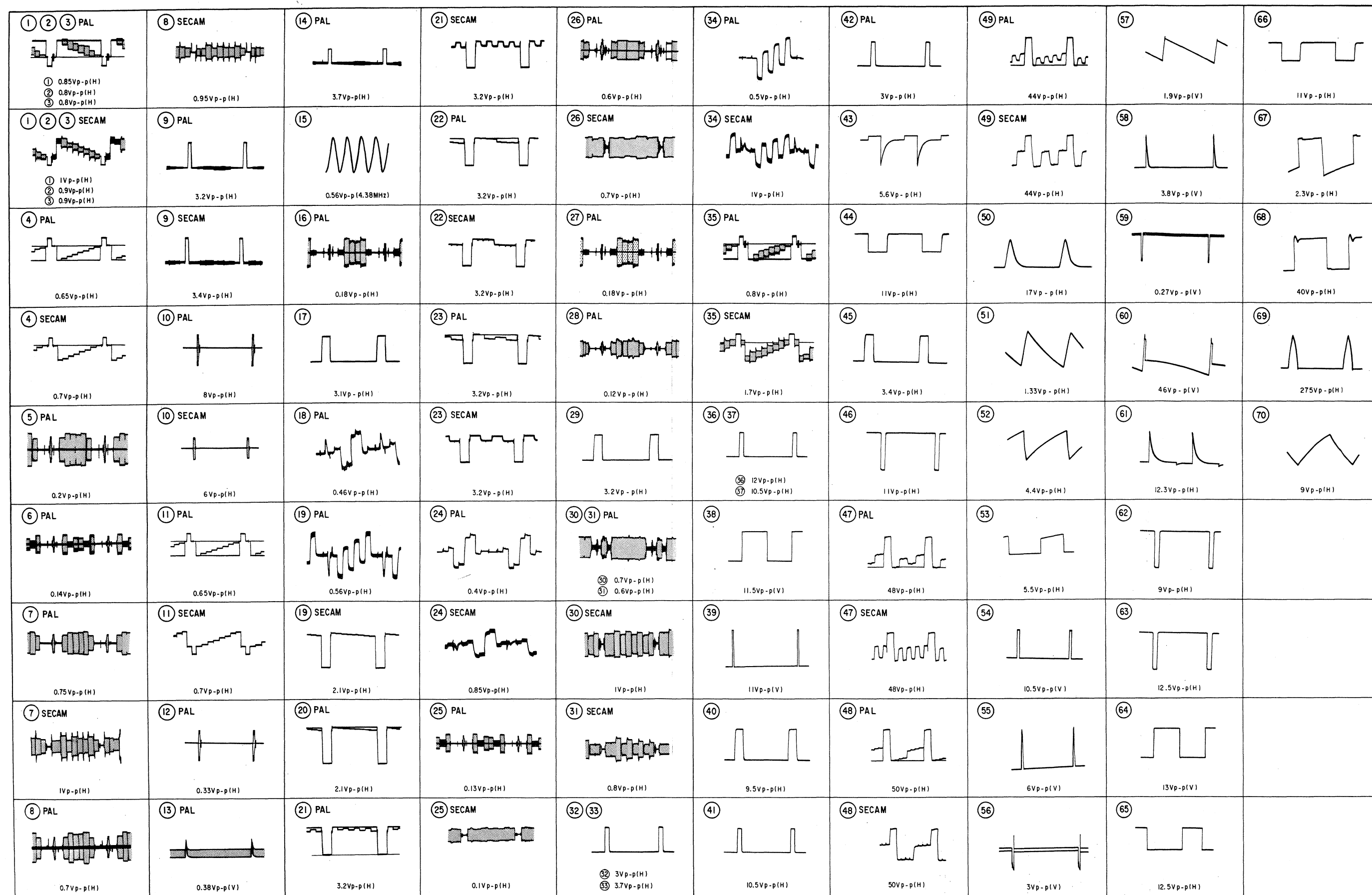
Note:

- All capacitors are in μF unless otherwise noted. p : μF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, 1/6W unless otherwise noted. k : 1000 Ω , M : 1000k Ω
-  : Nonflammable resistor
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
-  : Fusible resistor
- $\triangle$: internal component.
-  : panel designation.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10M Ω digital multimeter.
- Voltage variations may be noted due to normal production tolerances.
-  : adjustment for repair.
- Voltage on FB board is taken with Q610 Emitter.
- Readings are taken with a color-bar signal input.
no mark : with PAL color-bar signal received.
() : with SECAM color-bar signal received.
- Circled numbers (① – ⑦⑩) are waveform references.
Refer to waveform on page 5-15(E)(I).
- Refer to waveform on page 5-15(E)(I), 5-16(E)(I).





5-4. WAVEFORMS
5-3. FORMA D'ONDA



5-15(E)(I)

5-16(E)(I)

5-5. PRIM
5-4. SCH
1

A — B
— Q
Q
IC
D
ADJ
C
D
E
F
G
H
I
J

5-5. PRINTED WIRING BOARDS - Conductor Side -
5-4. SCHEMA DI MANTAGGIO - Lato Conduttori -

BA

[VIDEO AMP
Y. DEMOD, SECAM DEMOD]

[AMPLIFICATORE VIDEO
DEMOLATORE-Y
DEMOLATORE SECAM]

C

[R. G. B OUT]

HB

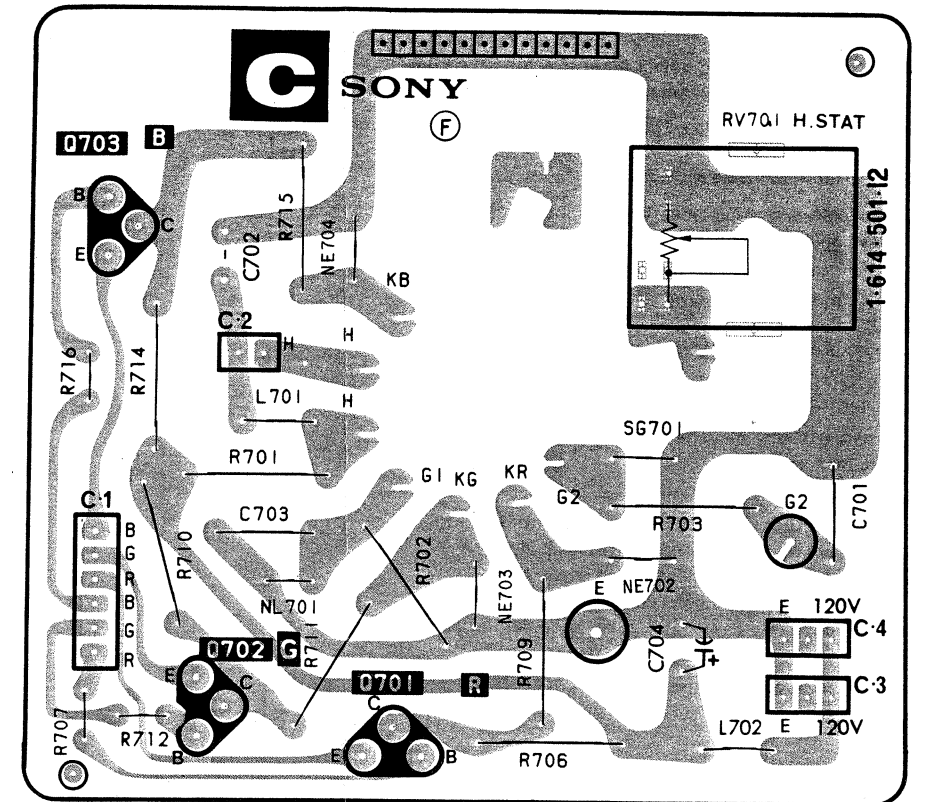
[CUSTOMER CONTROL
CONTROLLO UTETE]

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

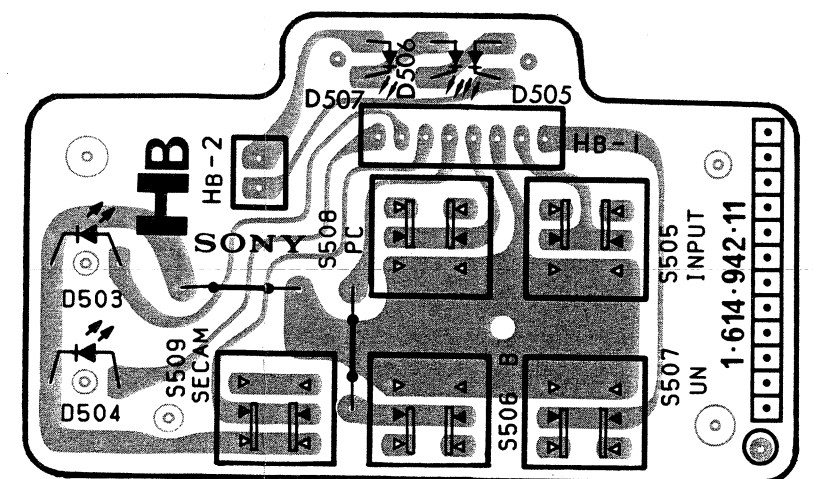
- BA Board -
- QUADRO BA -

Q	IC	252 251	253	278	258 256	IC253 257	271	274 270	279	273	259 IC251 272	Q
D		257 258		253			255					D
ADJ	RV258 RV263		RV255	RV254	RV256		RV253		RV264	RV252		ADJ

- C Board -
- QUADRO C -

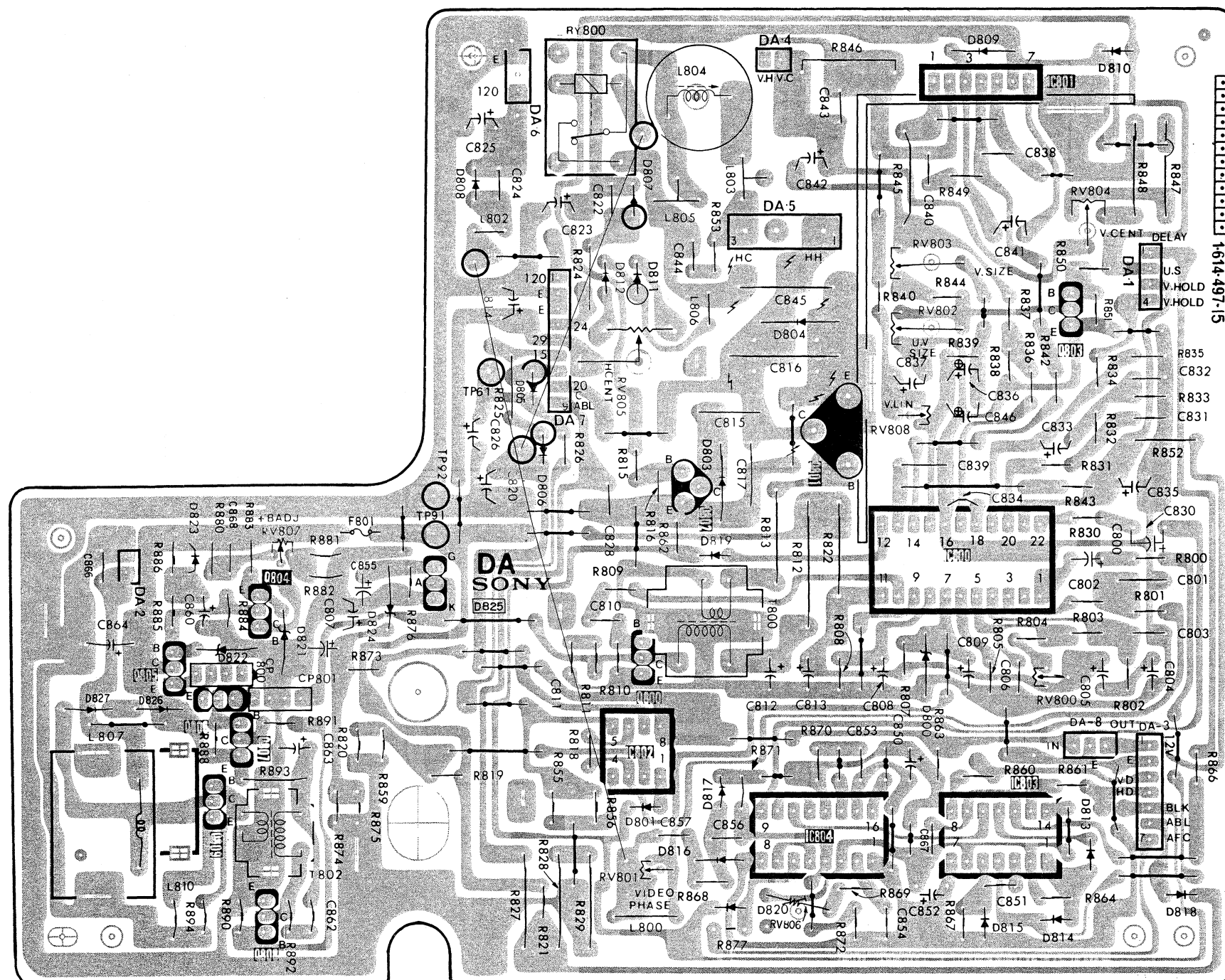


- HB Board -
- QUADRO HB -



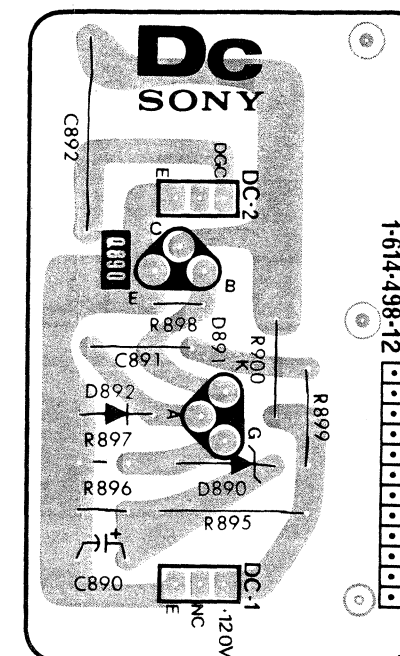
— DA Board —
— QUADRO DA —

Q															Q
IC															IC
D															D
ADJ															ADJ

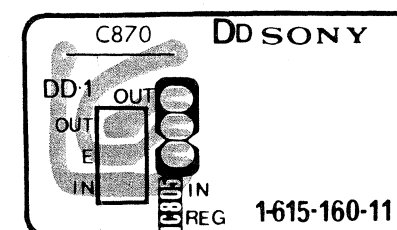


5-19(E)(I)

— DC Board —
— QUADRO DC —



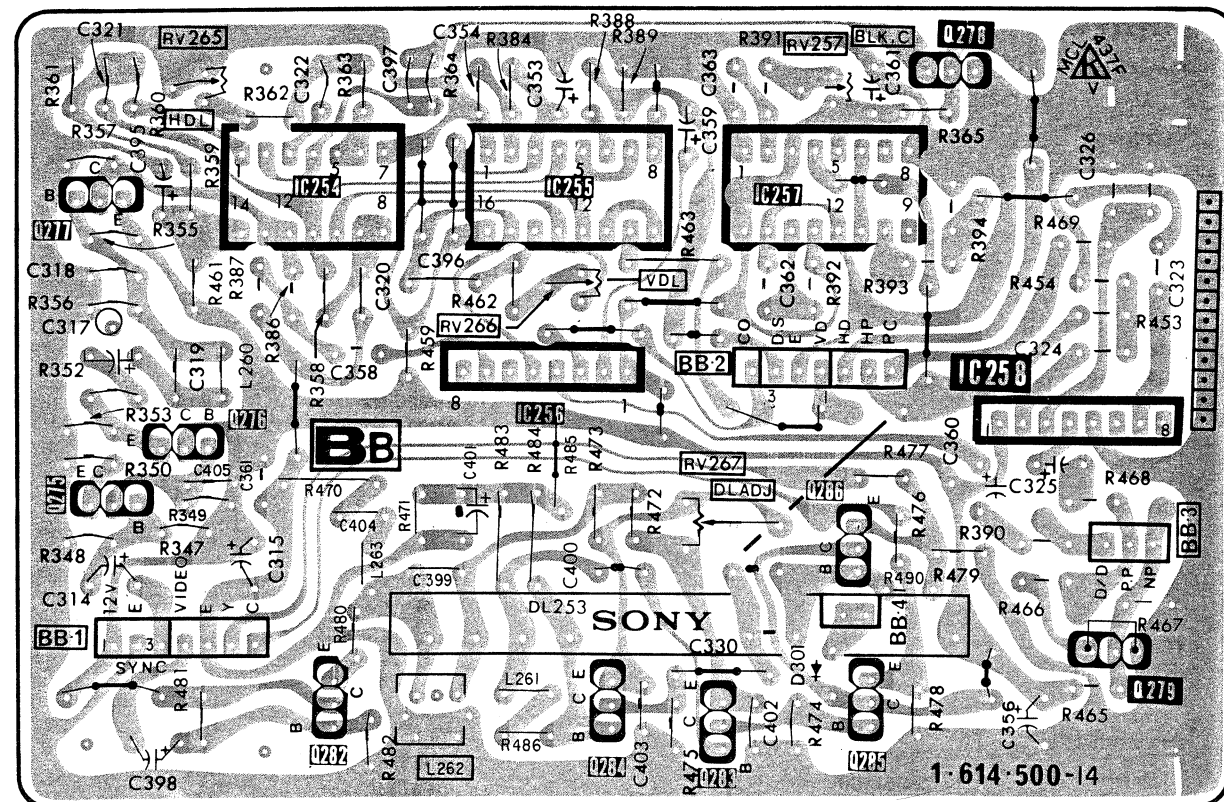
— DD Board —
— QUADRO DC —



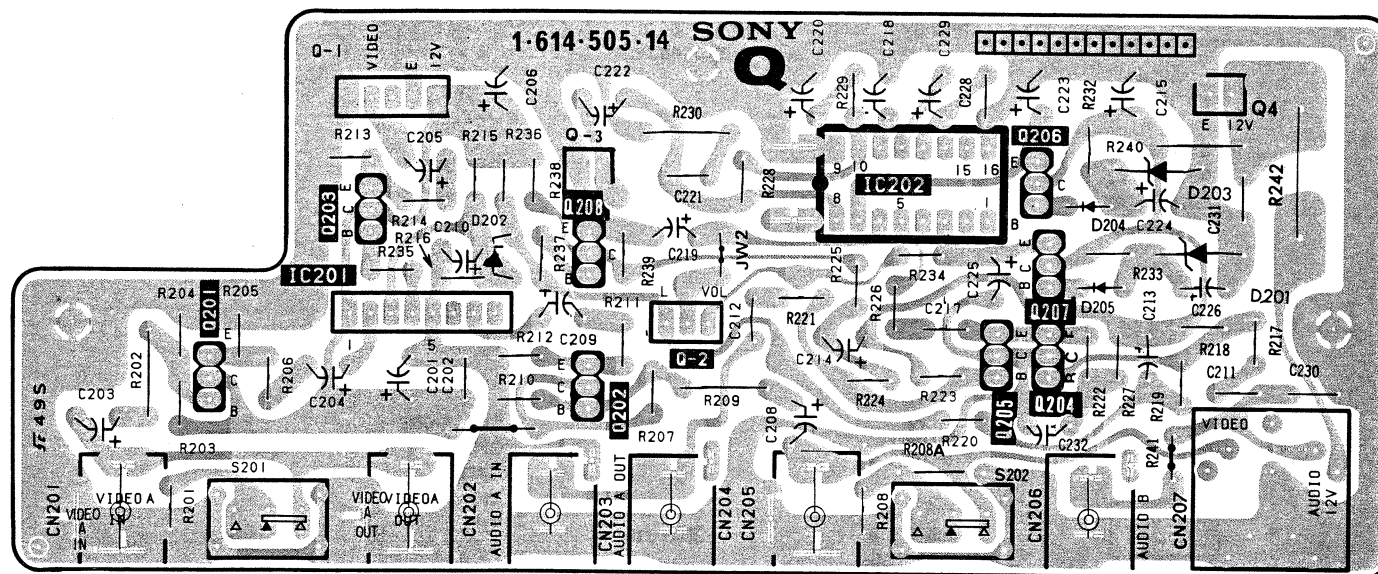
5-20(E)(I)

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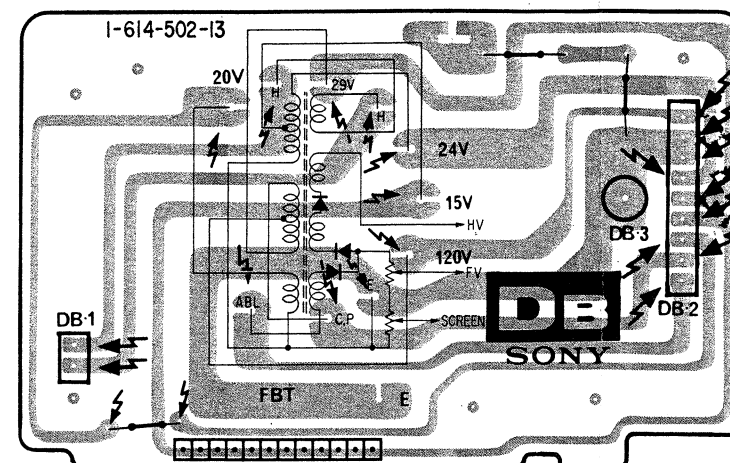
— BB Board —
— QUADRO BB —



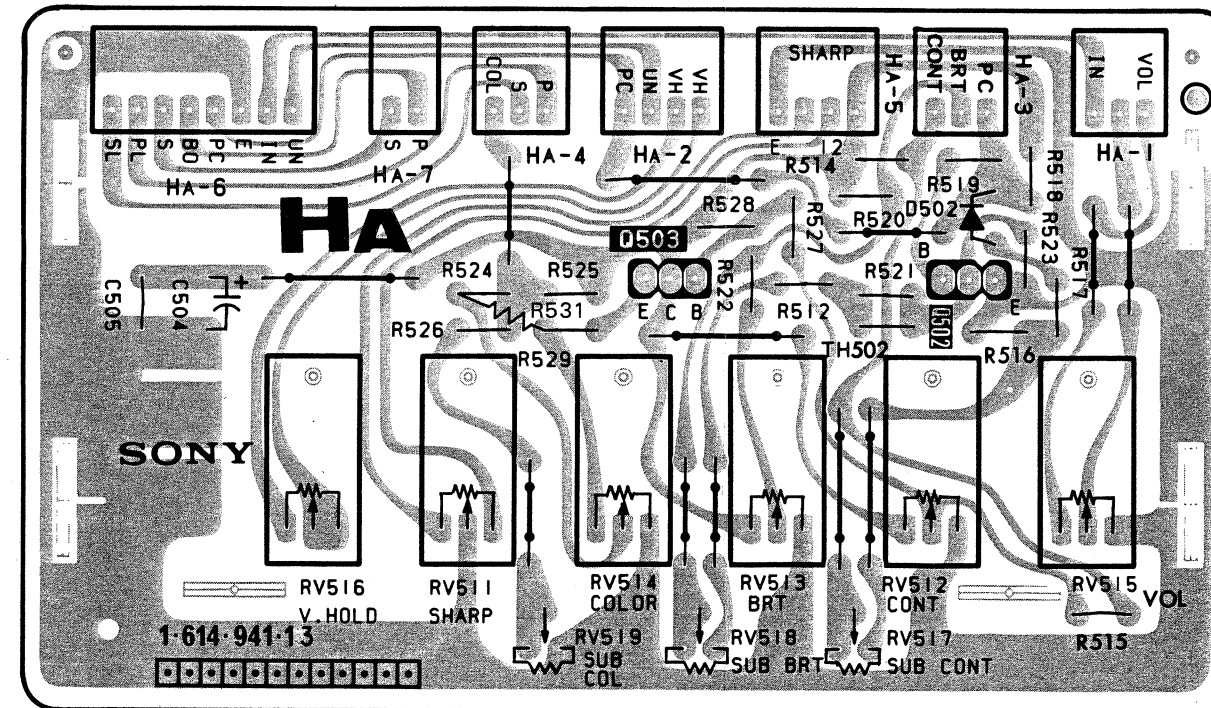
— Q Board —
— QUADRO Q —



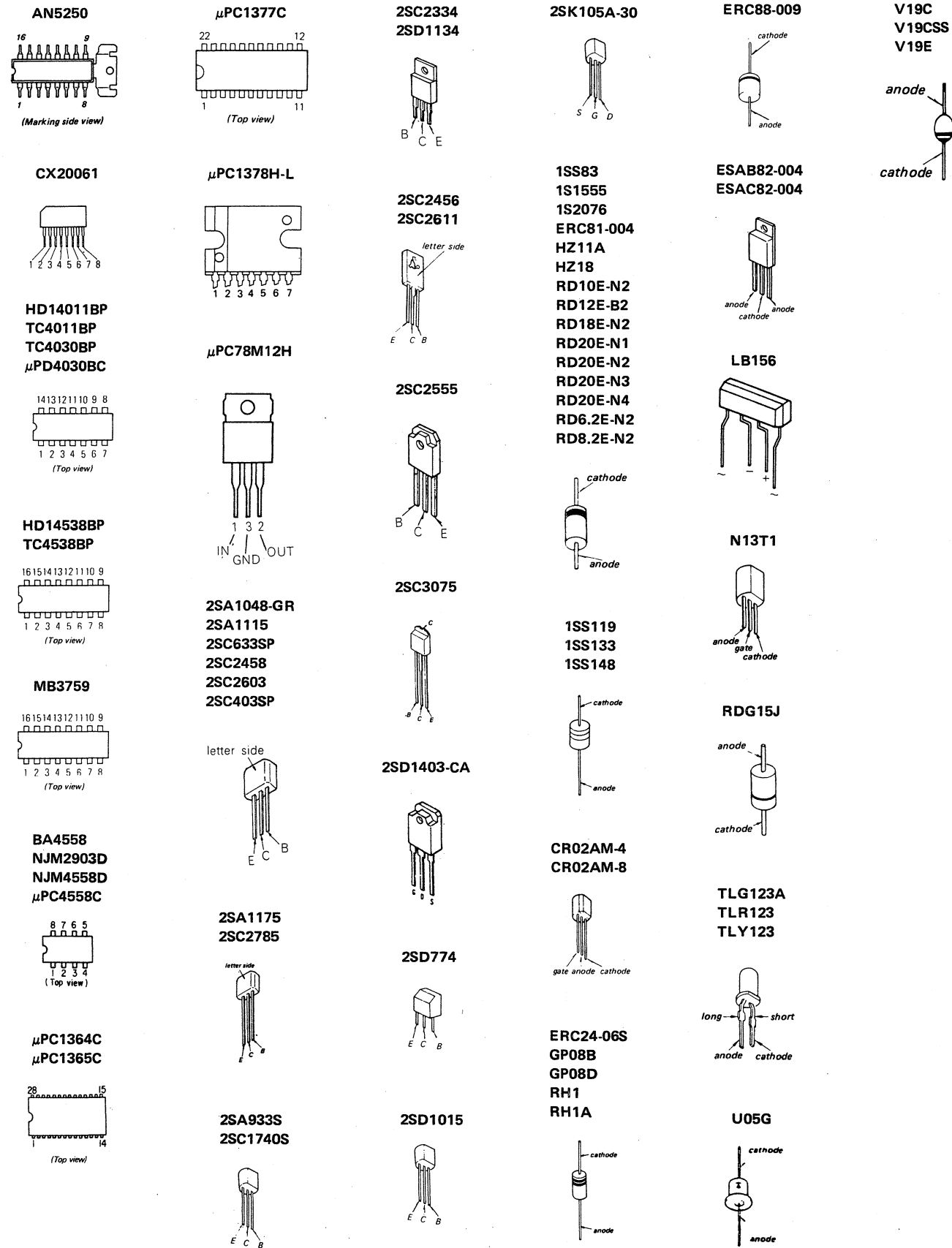
— DB Board —
— QUADRO DB —



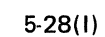
— HA Board —
— QUADRO HA —



5-6. SEMICONDUCTORS
5-5. SEMICONDUTTORI

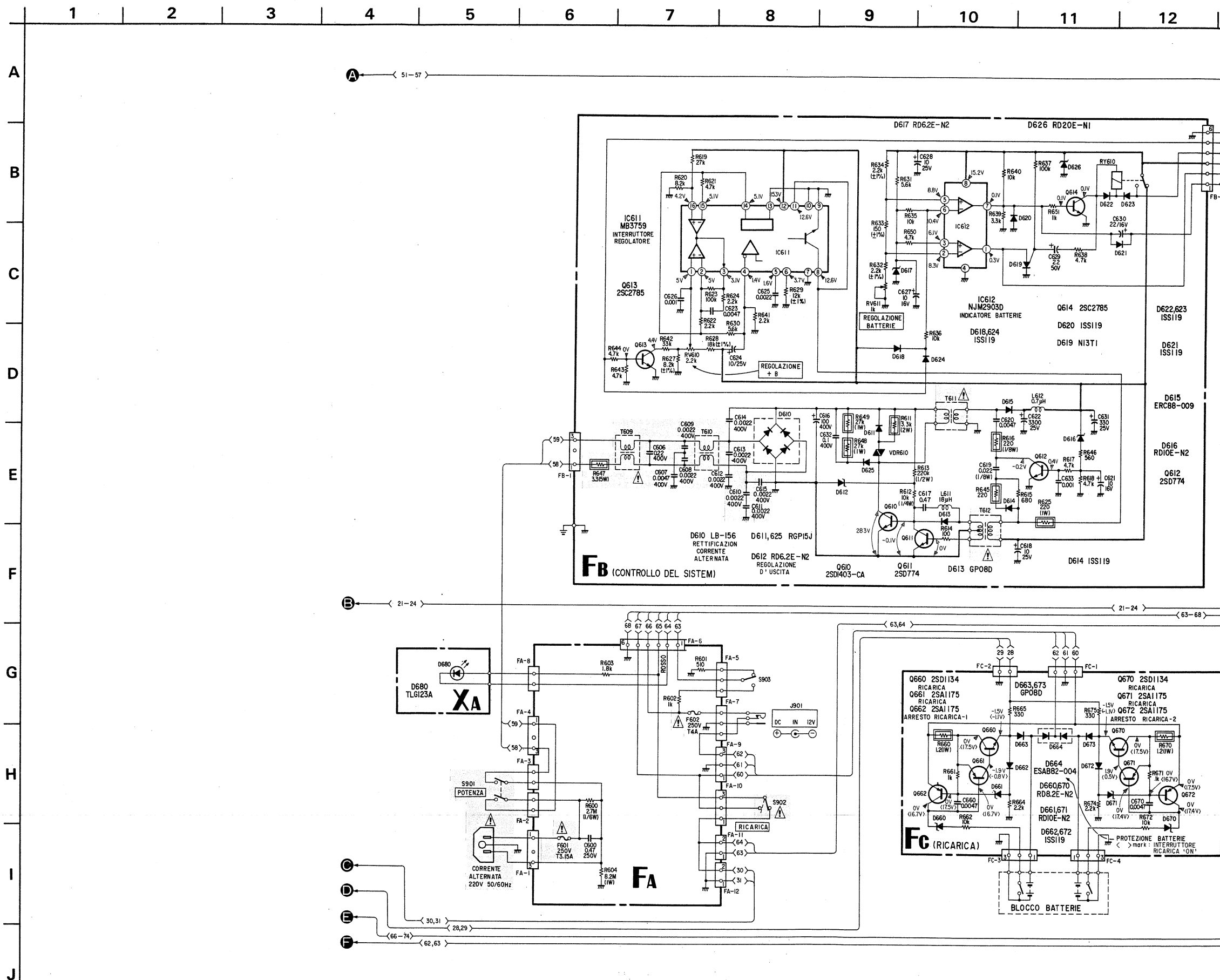


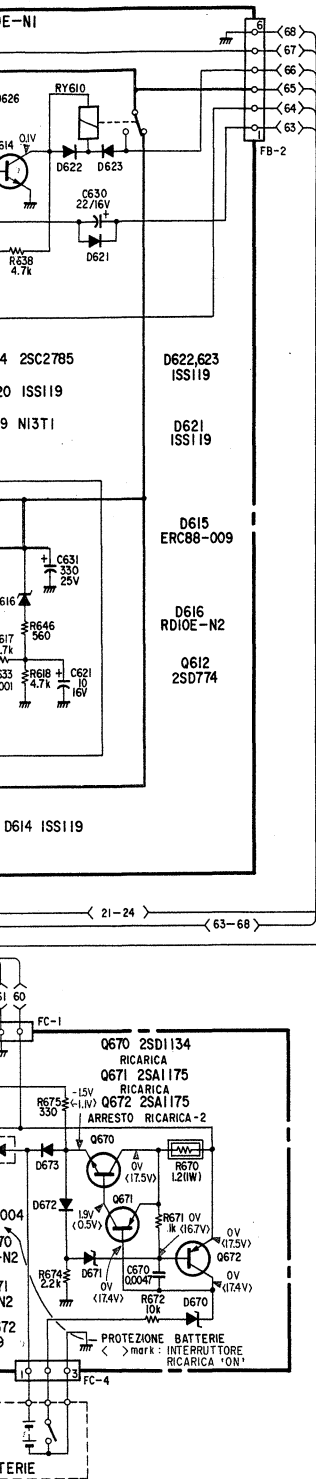
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Nota: I componenti identificati da una sfumatura o da un segno sono d'importanza critica per la sicurezza. Non sostituiteli che non dei pezzi di numero specificato.

- Tutti i condensatori sono in micro F, se non notato altrimenti.
pF: micro micro F 50 WV o meno non sono indicati eccetto per gli elettrolisi.
- Tutti i resistori sono in ohms, 1/6W se non notato altrimenti. k ohm = 1000 ohms, M ohm = 1000 k ohms
- Osservate che i quadri seguenti non sono impermeabili di 1/6 W.
- Quadro GA 1/4 W (come un riferimento)
-  : Resistore ininfiammabile
- Tutti i resistori variabili e regolabili hanno una curva caratteristica B, se non notato altrimenti.
-  : Resistore fusibile
-  : Componente interno
-  : Designazione del pannello
- I voltaggi sono dc relativi alla massa, se non notato altrimenti.
- Le letture possono essere effettuate con un multimetro digitale di 10 M ohm.
- La variazione del voltaggio può essere notata dovuta alle tolleranze della produzione normale.
-  : Regolazione per riparazione
- Le letture possono essere effettuate con il ingresso di un color-bar.
- Senza marca: PAL o comuni
() : SECAM
- I numeri circondati (1 - 70) sono i riferimenti della forma d'onda. Riferirsi alla forma d'onda sulle pagine 5-15(E)(I), 5-16(E)(I).





SECTION 6 EXPLODED VIEWS SEZIONE 6 DISEGNI ESPLOSI

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

NOTA:

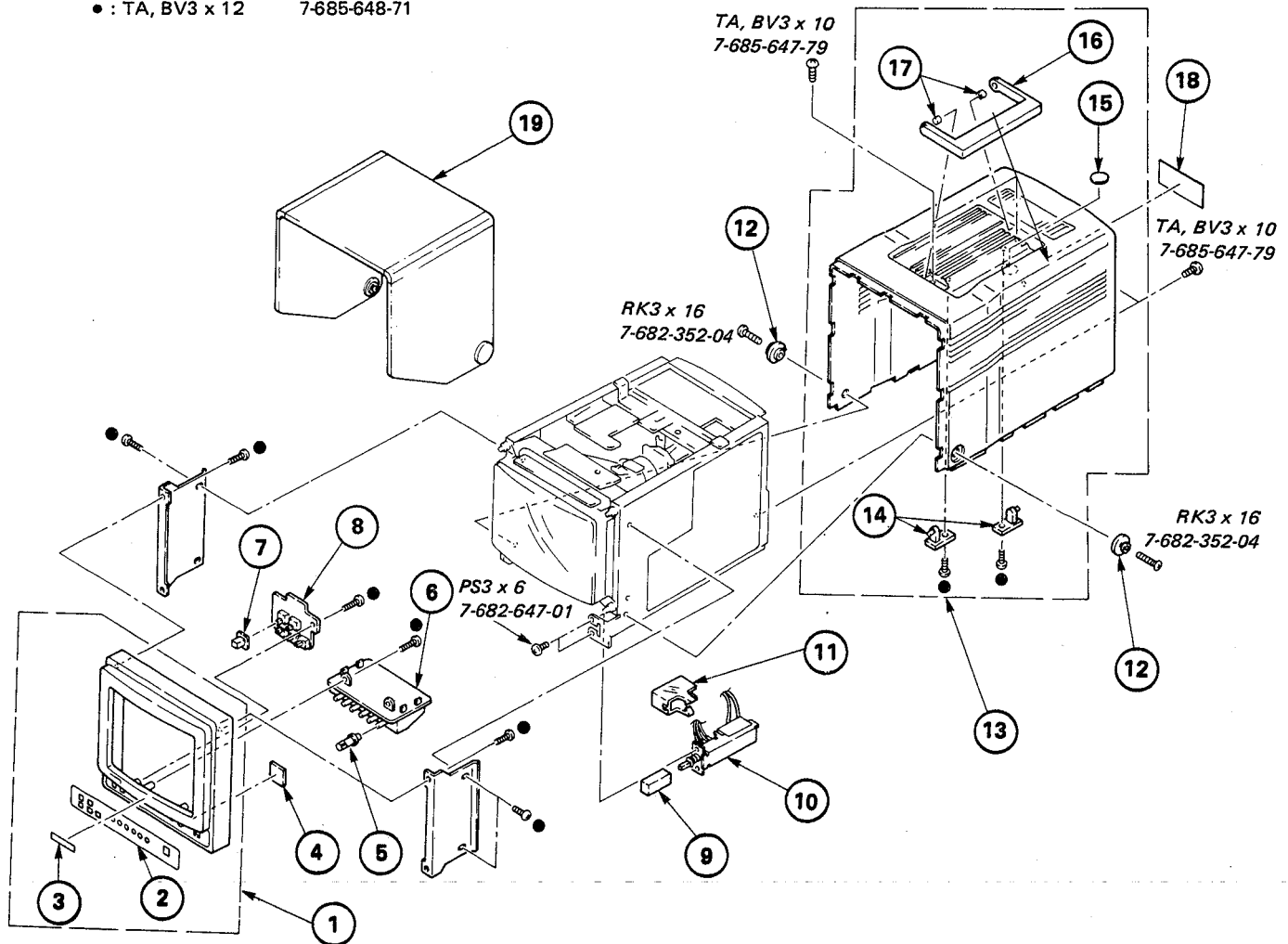
- Gli articoli privi di numero e di descrizione non si trovano in deposito a causa della loro scarsa richiesta.
- Le parti di montaggio di un insieme sono indicate con un numero di collocazione nella colonna delle note.

- Gli articoli contrassegnati con "★" non fanno parte del deposito di magazzino a causa della loro scarsa richiesta. Si possono quindi verificare ritardi nelle consegne dopo l'ordinazione.

I componenti contrassegnati con sfumatura e con il segno Δ sono altamente pericolosi. Sostituirli solo con parti con numero specificato.

6-1. BEZEL, CABINET

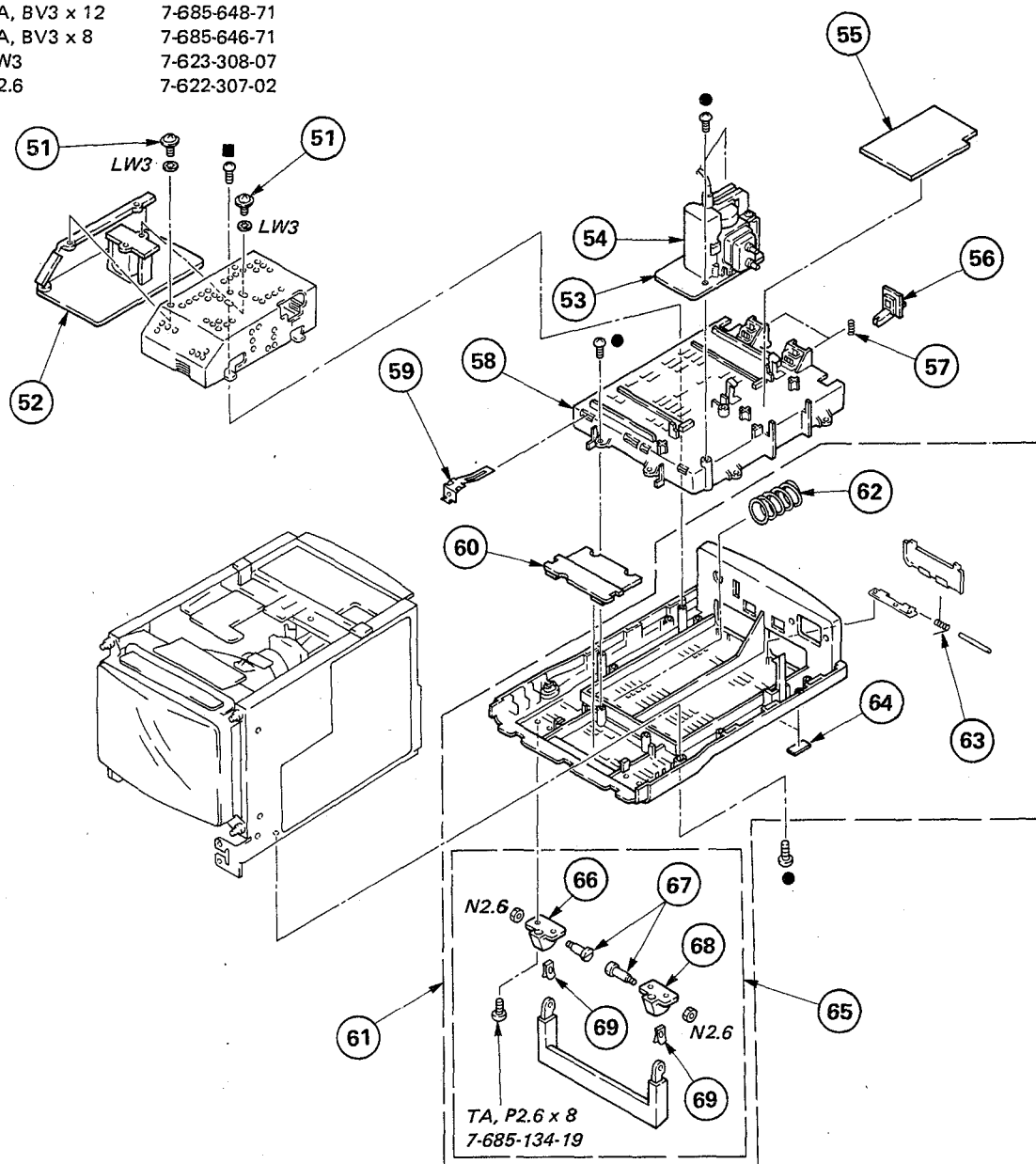
• : TA, BV3 x 12 7-685-648-71



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
1	X-4374-805-2	BEZEL ASSY	2,3	11	*4-374-825-01	COVER, SWITCH	14-17
2	4-374-830-11	LABEL, CONTROL		12	3-888-404-11	SHAFT, BELT	
3	3-566-707-11	EMBLEM, SONY		13	X-4374-807-1	CABINET ASSY	
4	*1-614-496-11	X BOARD		14	*4-361-411-01	SHAFT, HANDLE	
5	4-374-820-01	KNOB, CONTROL		15	9-911-840-XX	SPACER, SIDE	
6	*1-614-941-11	HA BOARD		16	4-361-428-21	HANDLE	
7	4-369-627-11	PUSH BUTTON		17	*4-361-410-00	SPACER, HANDLE	
8	*1-614-942-11	HB BOARD		18	*4-374-847-01	LABEL, MODEL NUMBER (LARGE)	
9	4-374-839-01	SWITCH (A)		19	4-374-831-01	HOOD (VF-501)	
10	Δ 1-570-201-11	SWITCH, PUSH (AC POWER)(1 KEY)					

6-2. BOTTOM CABINET

- : TA, BV3 x 12 7-685-648-71
- : TA, BV3 x 8 7-685-646-71
- LW3 7-623-308-07
- N2.6 7-622-307-02



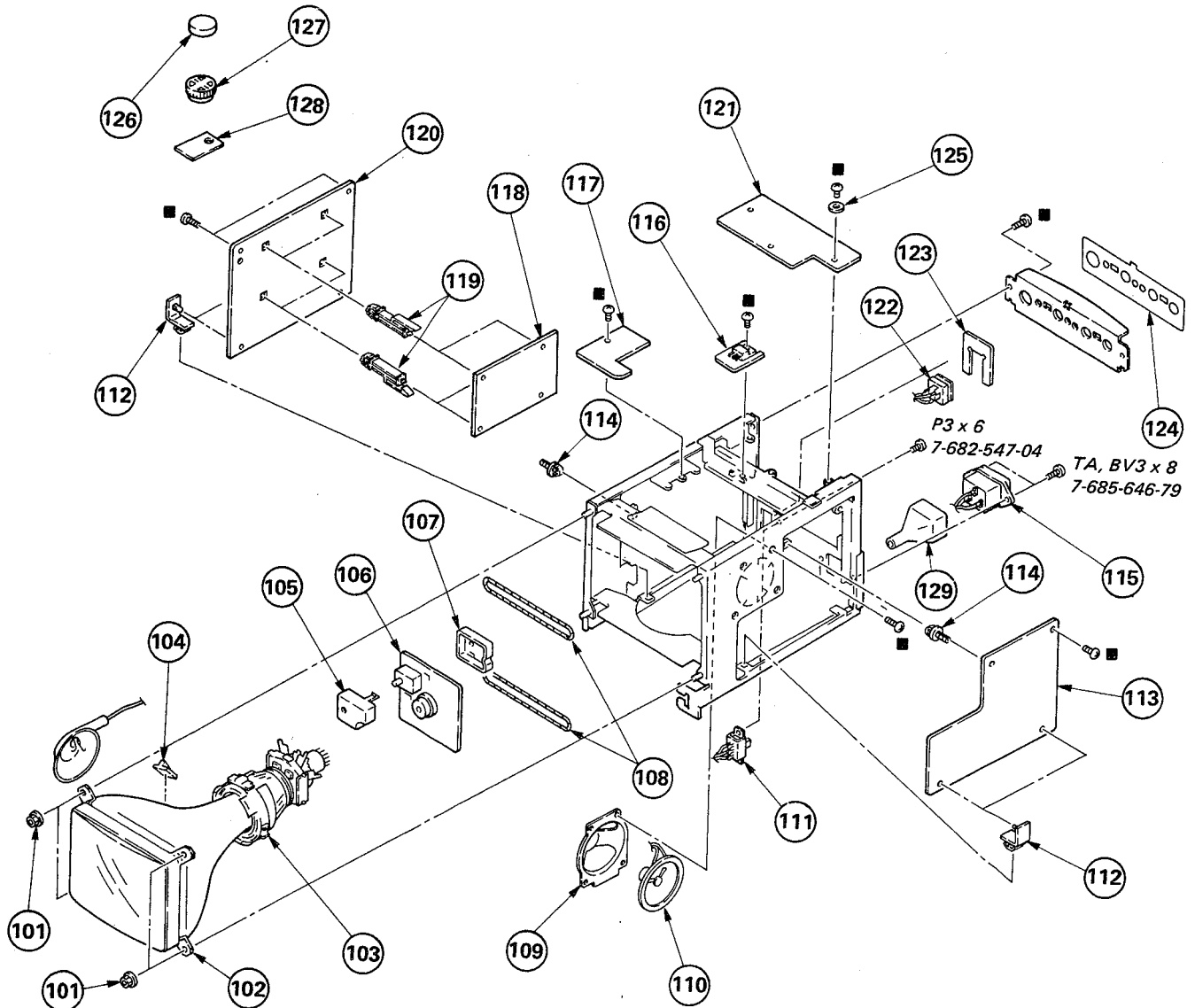
No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
51	3-701-809-31	SCREW, TERMINAL (M3X8)		61	X-4374-806-1	CABINET ASSY, BOTTOM	62-69
52	*A-1245-263-A	FB BOARD, COMPLETE		62	3-669-594-00	SPRING, COMPRESSION	
53	*1-614-502-11	DB BOARD		63	3-669-592-00	SPRING (A), TORSION	
54	▲1-439-358-11	TRANSFORMER ASSY, FLYBACK		64	9-911-852-XX	CUSHION	
55	*1-614-503-11	FA BOARD		65	X-4374-802-1	LEG ASSY	66-69
56	3-686-028-01	BUTTON, SLIDE		66	4-002-791-00	BRACKET (RIGHT), LEG	
57	4-876-347-01	SPRING, COMPRESSION		67	4-002-789-00	SCREW	
58	*4-374-835-01	HOLDER, BATTERY		68	4-002-790-00	BRACKET (LEFT), LEG	
59	3-669-526-00	TERMINAL		69	4-002-732-02	SPRING	
60	*1-614-504-11	FC BOARD					

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

I componenti contrassegnati con sfumatura e con il segno ▲ sono altamente pericolosi. Sostituirli solo con parti con numero specificato.

6-3. CHASSIS

■ : TA, BV3 x 8 7-685-646-71



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
101	4-304-511-00	NUT, FLANGE		116	*1-615-160-11	DD BOARD	
102	▲.8-737-151-05	CRT (M20JMP10X)		117	*1-614-498-11	DC BOARD	
103	▲.1-451-265-11	DEFLECTION YOKE (SY-167)		118	*A-1135-296-A	BB BOARD, COMPLETE	
104	4-309-369-00	SPACER, DEFLECTION YOKE		119	*3-657-516-00	SUPPORT, PC BOARD	
105	*4-374-822-01	COVER (A), CONTROL		120	*A-1135-348-A	BA BOARD, COMPLETE	
106	*A-1330-584-A	C BOARD, COMPLETE		121	*A-1270-160-A	Q BOARD, COMPLETE	
107	*4-374-806-01	COVER (B), CONTROL		122	1-507-465-00	JACK, POWER OUTSIDE	
108	▲.1-426-043-12	COIL, DEGAUSSING		123	*4-374-801-01	STOPPER, JACK, DC	
109	*4-344-240-00	BRACKET, SPEAKER		124	4-374-829-01	LABEL, PANEL	
110	1-502-509-00	SPEAKER		125	4-308-030-00	WASHER	
111	▲.1-516-046-11	SWITCH, SLIDE		126	1-452-032-00	MAGNET, DISK; 10MM Ø	
112	*3-701-832-00	HINGE, CIRCUIT BOARD		127	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
113	*A-1345-522-A	DA BOARD, COMPLETE		128	1-452-126-11	MAGNET	
114	*4-303-473-00	SUPPORT, PC		129	*4-601-466-11	COVER, 3P INLET	
115	▲.1-509-547-11	3P INLET					

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

I componenti contrassegnati con sfumatura e con il segno ▲ sono altamente pericolosi. Sostituirli solo con parti con numero specificato.

SECTION 7 ELECTRICAL PARTS LIST

SEZIONE 7 ELENCO DI PEZZI ELETTRICI

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

CAPACITORS

- MF : μF , PF : $\mu\mu F$

COILS

- MMH : mH, UH : μH

NOTA:

I componenti contrassegnati con sfumatura e con il segno Δ sono altamente pericolosi. Sostituirli solo con parti con numero specificato.

- Gli articoli contrassegnati con "★" non fanno parte del deposito di magazzino a causa della loro scarsa richiesta. Si possono quindi verificare ritardi nelle consegne dopo l'ordinazione.

Nelle indicazioni delle parti mediante il numero, includere anche il nome della piastra.

- Tutte i reostati e i resistori regolabili hanno curva caratteristica B, se non altrimenti specificato.

BOBINE

- MMH: mH, UH: μH

CONDENSATORI

- HF: μF , PF: $\mu\mu F$

RESISTORI

- Tutti i resistori sono in ohm.
- F: non infiammabile

BA

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
*A-1135-348-A BA BOARD, COMPLETE *****				C289	1-123-608-00	ELECT 0.22MF	20% 50V
				C290	1-123-607-00	ELECT 0.1MF	20% 50V
				C291	1-123-608-00	ELECT 0.22MF	20% 50V
				C292	1-102-129-21	CERAMIC 0.01MF	10% 50V
				C293	1-102-129-21	CERAMIC 0.01MF	10% 50V
CONNECTOR				C294	1-161-313-00	CERAMIC 150PF	10% 50V
BA1	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P		C295	1-102-937-00	CERAMIC 4PF	0.5PF 50V
BA2	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P		C296	1-123-332-00	ELECT 47MF	20% 25V
BA4	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P		C297	1-101-006-21	CERAMIC 0.047MF	50V
BA5	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P		C298	1-123-356-00	ELECT 10MF	20% 16V
BA6	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P		C299	1-102-678-00	CERAMIC 100PF	5% 50V
BA7	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P		C300	1-101-006-21	CERAMIC 0.047MF	50V
BA8	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P		C301	1-101-004-00	CERAMIC 0.01MF	50V
BA9	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P		C302	1-101-004-00	CERAMIC 0.01MF	50V
BA10	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P		C303	1-101-004-00	CERAMIC 0.01MF	50V
BA11	*1-564-354-21	PLUG, CONNECTOR (2.5MM) 3P		C304	1-102-965-00	CERAMIC 39PF	5% 50V
BA12	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P		C305	1-102-937-00	CERAMIC 4PF	0.5PF 50V
CAPACITOR				C306	1-102-129-21	CERAMIC 0.01MF	10% 50V
C251	1-102-953-00	CERAMIC 18PF	5% 50V	C307	1-131-368-00	TANTALUM 3.3MF	10% 16V
C253	1-123-333-00	ELECT 100MF	20% 25V	C308	1-123-356-00	ELECT 10MF	20% 16V
C254	1-101-004-00	CERAMIC 0.01MF	50V	C309	1-102-129-21	CERAMIC 0.01MF	10% 50V
C255	1-102-662-00	CERAMIC 7PF	0.5PF 50V	C310	1-102-129-21	CERAMIC 0.01MF	10% 50V
C256	1-102-662-00	CERAMIC 7PF	0.5PF 50V	C311	1-123-380-00	ELECT 1MF	20% 50V
C257	1-102-662-00	CERAMIC 7PF	0.5PF 50V	C312	1-101-006-21	CERAMIC 0.047MF	50V
C258	1-102-662-00	CERAMIC 7PF	0.5PF 50V	C313	1-123-333-00	ELECT 100MF	20% 25V
C259	1-123-318-00	ELECT 33MF	20% 16V	C323	1-102-129-21	CERAMIC 0.01MF	10% 50V
C260	1-101-361-00	CERAMIC 150PF	5% 50V	C326	1-101-880-00	CERAMIC 47PF	5% 50V
C261	1-123-380-00	ELECT 1MF	20% 50V	C327	1-102-944-00	CERAMIC 7PF	0.5PF 50V
C262	1-102-973-00	CERAMIC 100PF	5% 50V	C328	1-102-129-21	CERAMIC 0.01MF	10% 50V
C263	1-123-819-00	ELECT 33MF	20% 25V	C329	1-102-129-21	CERAMIC 0.01MF	10% 50V
C264	1-101-006-21	CERAMIC 0.047MF	50V	C330	1-102-129-21	CERAMIC 0.01MF	10% 50V
C265	1-101-004-00	CERAMIC 0.01MF	50V	C331	1-101-880-00	CERAMIC 47PF	5% 50V
C267	1-101-004-00	CERAMIC 0.01MF	50V	C332	1-101-880-00	CERAMIC 47PF	5% 50V
C268	1-101-004-00	CERAMIC 0.01MF	50V	C333	1-102-938-00	CERAMIC 1PF	0.5PF 50V
C269	1-123-318-00	ELECT 33MF	20% 16V	C334	1-102-963-00	CERAMIC 33PF	5% 50V
C270	1-102-129-21	CERAMIC 0.01MF	10% 50V	C335	1-123-607-00	ELECT 0.1MF	20% 50V
C271	1-102-129-21	CERAMIC 0.01MF	10% 50V	C336	1-123-380-00	ELECT 1MF	20% 50V
C272	1-101-006-21	CERAMIC 0.047MF	50V	C340	1-101-006-21	CERAMIC 0.047MF	50V
C273	1-102-679-00	CERAMIC 120PF	5% 50V	C343	1-123-356-00	ELECT 10MF	20% 25V
C274	1-121-257-00	ELECT 4.7MF	16V	C344	1-123-379-00	ELECT 0.47MF	20% 50V
C275	1-121-257-00	ELECT 4.7MF	16V	C345	1-102-129-21	CERAMIC 0.01MF	10% 50V
C276	1-101-361-00	CERAMIC 150PF	5% 50V	C346	1-102-963-00	CERAMIC 33PF	5% 50V
C277	1-101-361-00	CERAMIC 150PF	5% 50V	C347	1-102-129-21	CERAMIC 0.01MF	10% 50V
C278	1-102-971-00	CERAMIC 82PF	5% 50V	C348	1-106-212-00	MYLAR 0.047MF	10% 100V
C279	1-102-971-00	CERAMIC 82PF	5% 50V	C349	1-106-212-00	MYLAR 0.047MF	10% 100V
C280	1-123-333-00	ELECT 100MF	20% 25V	C350	1-123-381-00	ELECT 2.2MF	20% 50V
C281	1-101-006-21	CERAMIC 0.047MF	50V	C351	1-123-369-00	ELECT 4.7MF	20% 50V
C282	1-102-892-00	CERAMIC 22PF	5% 50V	C352	1-123-380-00	ELECT 1MF	20% 50V
C284	1-106-220-00	MYLAR 0.1MF	10% 100V	C365	1-102-129-21	CERAMIC 0.01MF	10% 50V
C285	1-102-892-00	CERAMIC 22PF	5% 50V	C366	1-123-382-00	ELECT 3.3MF	20% 50V
C286	1-123-379-00	ELECT 0.47MF	20% 50V	C367	1-101-004-00	CERAMIC 0.01MF	50V
C287	1-123-381-00	ELECT 2.2MF	20% 50V	C368	1-102-129-21	CERAMIC 0.01MF	10% 50V
C288	1-123-380-00	ELECT 1MF	20% 50V	C369	1-123-333-00	ELECT 100MF	20% 25V

BA

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C370	1-123-356-00	ELECT 10MF	20% 25V	Q266	8-729-115-30	TRANSISTOR 2SK105A-30	
C381	1-123-333-00	ELECT 100MF	20% 25V	Q267	8-729-245-83	TRANSISTOR 2SC2458	
C382	1-102-129-21	CERAMIC 0.01MF	10% 50V	Q268	8-729-245-83	TRANSISTOR 2SC2458	
C386	1-102-820-00	CERAMIC 330PF	5% 50V	Q269	8-729-204-83	TRANSISTOR 2SA1048GR	
C387	1-102-820-00	CERAMIC 330PF	5% 50V	Q270	8-729-603-50	TRANSISTOR 2SC403SP	
C388	1-102-820-00	CERAMIC 330PF	5% 50V	Q271	8-729-245-83	TRANSISTOR 2SC2458	
<u>DIODE</u>				Q272	8-729-245-83	TRANSISTOR 2SC2458	
D251	8-719-911-19	DIODE 1SS119		Q273	8-729-603-50	TRANSISTOR 2SC403SP	
D252	8-719-911-19	DIODE 1SS119		Q274	8-729-245-83	TRANSISTOR 2SC2458	
D253	8-719-911-19	DIODE 1SS119		Q279	8-729-245-83	TRANSISTOR 2SC2458	
D254	8-719-911-19	DIODE 1SS119		<u>RESISTOR</u>			
D255	8-719-911-19	DIODE 1SS119		R251	1-247-867-00	CARBON 33K 5% 1/6W	
D257	8-719-911-19	DIODE 1SS119		R252	1-247-851-00	CARBON 6.8K 5% 1/6W	
D258	8-719-911-19	DIODE 1SS119		R253	1-247-825-00	CARBON 560 5% 1/6W	
D259	8-719-911-19	DIODE 1SS119		R254	1-247-833-00	CARBON 1.2K 5% 1/6W	
<u>DELAY LINE</u>				R257	1-247-831-00	CARBON 1K 5% 1/6W	
DL251	1-415-330-00	DELAY LINE, Y		R259	1-247-835-00	CARBON 1.5K 5% 1/6W	
DL252	1-415-122-31	DELAY LINE, 1H (PAL)		R260	1-247-835-00	CARBON 1.5K 5% 1/6W	
<u>IC</u>				R261	1-247-831-00	CARBON 1K 5% 1/6W	
IC251	8-752-006-10	IC CX20061		R262	1-247-831-00	CARBON 1K 5% 1/6W	
IC252	8-759-100-15	IC UPC1364C		R263	1-247-819-00	CARBON 330 5% 1/6W	
IC253	8-759-113-65	IC UPC1365C		R264	1-247-855-00	CARBON 10K 5% 1/6W	
<u>COIL</u>				R265	1-247-867-00	CARBON 33K 5% 1/6W	
L252	1-409-193-00	COIL 3.58MHZ TRAP		R266	1-247-831-00	CARBON 1K 5% 1/6W	
L253	1-409-193-00	COIL 3.58MHZ TRAP		R267	1-247-819-00	CARBON 330 5% 1/6W	
L254	1-408-418-00	MICRO INDUCTOR 56UH		R268	1-247-867-00	CARBON 33K 5% 1/6W	
L255	1-408-408-00	MICRO INDUCTOR 8.2UH		R269	1-247-855-00	CARBON 10K 5% 1/6W	
L256	1-408-418-00	MICRO INDUCTOR 56UH		R270	1-247-831-00	CARBON 1K 5% 1/6W	
L257	1-408-416-00	MICRO INDUCTOR 39UH		R271	1-247-807-00	CARBON 100 5% 1/6W	
L258	1-408-406-00	MICRO INDUCTOR 5.6UH		R272	1-247-835-00	CARBON 1.5K 5% 1/6W	
L262	1-408-414-00	MICRO INDUCTOR 27UH		R273	1-247-807-00	CARBON 100 5% 1/6W	
<u>TRANSISTOR</u>				R274	1-247-831-00	CARBON 1K 5% 1/6W	
Q251	8-729-603-50	TRANSISTOR 2SC403SP		R275	1-247-819-00	CARBON 330 5% 1/6W	
Q252	8-729-245-83	TRANSISTOR 2SC2458		R276	1-247-819-00	CARBON 330 5% 1/6W	
Q253	8-729-245-83	TRANSISTOR 2SC2458		R277	1-247-873-00	CARBON 56K 5% 1/6W	
Q254	8-729-245-83	TRANSISTOR 2SC2458		R278	1-247-877-00	CARBON 82K 5% 1/6W	
Q255	8-729-245-83	TRANSISTOR 2SC2458		R279	1-247-807-00	CARBON 100 5% 1/6W	
Q256	8-729-245-83	TRANSISTOR 2SC2458		R280	1-247-861-00	CARBON 18K 5% 1/6W	
Q257	8-729-603-50	TRANSISTOR 2SC403SP		R281	1-247-855-00	CARBON 10K 5% 1/6W	
Q258	8-729-204-83	TRANSISTOR 2SA1048GR		R282	1-247-807-00	CARBON 100 5% 1/6W	
Q259	8-729-245-83	TRANSISTOR 2SC2458		R283	1-247-867-00	CARBON 33K 5% 1/6W	
Q260	8-729-245-83	TRANSISTOR 2SC2458		R284	1-247-867-00	CARBON 33K 5% 1/6W	
Q261	8-729-204-83	TRANSISTOR 2SA1048GR		R285	1-247-879-00	CARBON 100K 5% 1/6W	
Q262	8-729-204-83	TRANSISTOR 2SA1048GR		R286	1-247-815-00	CARBON 220 5% 1/6W	
Q263	8-729-245-83	TRANSISTOR 2SC2458		R287	1-247-815-00	CARBON 220 5% 1/6W	
Q264	8-729-245-83	TRANSISTOR 2SC2458		R288	1-247-807-00	CARBON 100 5% 1/6W	
Q265	8-729-115-30	TRANSISTOR 2SK105A-30		R289	1-247-823-00	CARBON 470 5% 1/6W	
				R290	1-247-821-00	CARBON 390 5% 1/6W	
				R291	1-247-827-00	CARBON 680 5% 1/6W	
				R292	1-247-847-00	CARBON 4.7K 5% 1/6W	
				R293	1-247-847-00	CARBON 4.7K 5% 1/6W	

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R294	1-247-815-00	CARBON	220 5% 1/6W	R377	1-247-835-00	CARBON	1.5K 5% 1/6W
R295	1-247-815-00	CARBON	220 5% 1/6W	R378	1-247-887-00	CARBON	220K 5% 1/6W
R296	1-247-847-00	CARBON	4.7K 5% 1/6W	R380	1-247-879-00	CARBON	100K 5% 1/6W
R297	1-247-815-00	CARBON	220 5% 1/6W	R381	1-247-863-00	CARBON	22K 5% 1/6W
R298	1-247-133-00	CARBON	1.2K 5% 1/4W	R382	1-247-867-00	CARBON	33K 5% 1/6W
R299	1-247-819-00	CARBON	330 5% 1/6W	R383	1-247-831-00	CARBON	1K 5% 1/6W
R300	1-247-879-00	CARBON	100K 5% 1/6W	R395	1-247-857-00	CARBON	12K 5% 1/6W
R301	1-247-879-00	CARBON	100K 5% 1/6W	R396	1-247-863-00	CARBON	22K 5% 1/6W
R302	1-247-145-00	CARBON	3.9K 5% 1/4W	R397	1-247-823-00	CARBON	470 5% 1/6W
R303	1-247-115-00	CARBON	220 5% 1/4W	R398	1-247-831-00	CARBON	1K 5% 1/6W
R304	1-247-115-00	CARBON	220 5% 1/4W	R399	1-249-421-11	CARBON	2.2K 5% 1/6W
R305	1-247-853-00	CARBON	8.2K 5% 1/6W	R400	1-247-865-00	CARBON	27K 5% 1/6W
R306	1-247-853-00	CARBON	8.2K 5% 1/6W	R401	1-247-865-00	CARBON	27K 5% 1/6W
R307	1-247-843-00	CARBON	3.3K 5% 1/6W	R402	1-247-877-00	CARBON	82K 5% 1/6W
R308	1-247-853-00	CARBON	8.2K 5% 1/6W	R403	1-247-847-00	CARBON	4.7K 5% 1/6W
R309	1-247-867-00	CARBON	33K 5% 1/6W	R406	1-247-821-00	CARBON	390 5% 1/6W
R310	1-247-833-00	CARBON	1.2K 5% 1/6W	R408	1-247-821-00	CARBON	390 5% 1/6W
R311	1-247-873-00	CARBON	56K 5% 1/6W	R410	1-247-821-00	CARBON	390 5% 1/6W
R312	1-249-421-11	CARBON	2.2K 5% 1/6W	R411	1-247-871-00	CARBON	47K 5% 1/6W
R313	1-247-879-00	CARBON	100K 5% 1/6W	R413	1-247-863-00	CARBON	22K 5% 1/6W
R314	1-210-825-00	SOLID	3.3M 5% 1/4W	R414	1-247-867-00	CARBON	33K 5% 1/6W
R315	1-247-855-00	CARBON	10K 5% 1/6W	R420	1-247-171-00	CARBON	47K 5% 1/4W
R316	1-247-833-00	CARBON	1.2K 5% 1/6W	R421	1-247-889-00	CARBON	270K 5% 1/6W
R317	1-247-807-00	CARBON	100 5% 1/6W	R437	1-247-845-00	CARBON	3.9K 5% 1/6W
R318	1-247-831-00	CARBON	1K 5% 1/6W	R438	1-247-823-00	CARBON	470 5% 1/6W
R320	1-247-843-00	CARBON	3.3K 5% 1/6W	R439	1-247-791-00	CARBON	22 5% 1/6W
R321	1-247-811-00	CARBON	150 5% 1/6W	R440	1-247-147-00	CARBON	4.7K 5% 1/4W
R322	1-247-837-00	CARBON	1.8K 5% 1/6W	R441	1-247-831-00	CARBON	1K 5% 1/6W
R323	1-247-827-00	CARBON	680 5% 1/6W	R442	1-247-845-00	CARBON	3.9K 5% 1/6W
R324	1-247-831-00	CARBON	1K 5% 1/6W	R443	1-247-823-00	CARBON	470 5% 1/6W
R326	1-247-823-00	CARBON	470 5% 1/6W	R444	1-247-791-00	CARBON	22 5% 1/6W
R327	1-249-421-11	CARBON	2.2K 5% 1/6W	R445	1-247-147-00	CARBON	4.7K 5% 1/4W
R328	1-247-855-00	CARBON	10K 5% 1/6W	R446	1-247-831-00	CARBON	1K 5% 1/6W
R329	1-247-847-00	CARBON	4.7K 5% 1/6W	R447	1-247-845-00	CARBON	3.9K 5% 1/6W
R330	1-247-833-00	CARBON	1.2K 5% 1/6W	R448	1-247-823-00	CARBON	470 5% 1/6W
R332	1-247-823-00	CARBON	470 5% 1/6W	R449	1-247-791-00	CARBON	22 5% 1/6W
R333	1-247-815-00	CARBON	220 5% 1/6W	R450	1-247-147-00	CARBON	4.7K 5% 1/4W
R334	1-247-843-00	CARBON	3.3K 5% 1/6W	R451	1-247-831-00	CARBON	1K 5% 1/6W
R335	1-249-421-11	CARBON	2.2K 5% 1/6W	R452	1-247-847-00	CARBON	4.7K 5% 1/6W
R336	1-247-823-00	CARBON	470 5% 1/6W	R458	1-247-841-00	CARBON	2.7K 5% 1/6W
R337	1-247-827-00	CARBON	680 5% 1/6W	R461	1-247-849-00	CARBON	5.6K 5% 1/6W
R338	1-247-853-00	CARBON	8.2K 5% 1/6W	R464	1-247-827-00	CARBON	680 5% 1/6W
R339	1-247-855-00	CARBON	10K 5% 1/6W	R465	1-247-867-00	CARBON	33K 5% 1/6W
R340	1-249-421-11	CARBON	2.2K 5% 1/6W	VARIABLE RESISTOR			
R341	1-247-807-00	CARBON	100 5% 1/6W	RV251	1-228-719-00	RES, ADJ, CERAMIC CARBON	470
R342	1-247-807-00	CARBON	100 5% 1/6W	RV252	1-228-723-00	RES, ADJ, CERAMIC CARBON	4.7K
R343	1-247-883-00	CARBON	150K 5% 1/6W	RV253	1-228-719-00	RES, ADJ, CERAMIC CARBON	470
R344	1-247-855-00	CARBON	10K 5% 1/6W	RV255	1-228-722-00	RES, ADJ, CERAMIC CARBON	3.3K
R345	1-247-843-00	CARBON	3.3K 5% 1/6W	RV256	1-228-725-00	RES, ADJ, CERAMIC CARBON	22K
R346	1-247-791-00	CARBON	22 5% 1/6W	RV258	1-224-660-21	RES, ADJ, METAL FILM	1K
R374	1-247-823-00	CARBON	470 5% 1/6W	RV259	1-224-493-00	RES, ADJ, METAL FILM	10K
R375	1-247-827-00	CARBON	680 5% 1/6W	RV260	1-224-660-21	RES, ADJ, METAL FILM	1K
R376	1-247-831-00	CARBON	1K 5% 1/6W				

BB

7-5(E)(I)

BB

FC

FA

Ref.No.	Part No.	Description	Remark
R460	1-246-463-25	CARBON 390 5% 1/4W	
R461	1-247-831-00	CARBON 1K 5% 1/6W	
R462	1-247-879-00	CARBON 100K 5% 1/6W	
R463	1-247-107-00	CARBON 100 5% 1/4W	
R465	1-249-421-11	CARBON 2.2K 5% 1/6W	
R466	1-247-863-00	CARBON 22K 5% 1/6W	
R467	1-247-852-00	CARBON 7.5K 5% 1/6W	
R468	1-247-815-00	CARBON 220 5% 1/6W	
R469	1-247-873-00	CARBON 56K 5% 1/6W	
R470	1-247-879-00	CARBON 100K 5% 1/6W	
R490	1-247-857-00	CARBON 12K 5% 1/6W	
R491	1-247-847-00	CARBON 4.7K 5% 1/6W	

VARIABLE RESISTOR

RV257	1-226-775-00	RES, ADJ, METAL GLAZE 100K
RV265	1-226-773-00	RES, ADJ, METAL GLAZE 22K
RV266	1-226-775-00	RES, ADJ, METAL GLAZE 100K

*1-614-504-11	FC BOARD

3-618-225-00	NUT, PLATE
*4-026-251-00	SPACER, INSULATING
4-313-734-00	BUSHING TR, Y

CAPACITOR

C660	1-161-047-00	CERAMIC 0.0047MF 10% 25V
C670	1-161-047-00	CERAMIC 0.0047MF 10% 25V

DIODE

D660	8-719-102-84	DIODE RD8.2E-N2
D661	8-719-102-90	DIODE RD10E-N2
D662	8-719-911-19	DIODE 1SS119
D663	8-719-911-55	DIODE U05G
D664	8-719-920-40	DIODE ESAC82-004
D670	8-719-102-84	DIODE RD8.2E-N2
D671	8-719-102-90	DIODE RD10E-N2
D672	8-719-911-19	DIODE 1SS119
D673	8-719-911-55	DIODE U05G

CONNECTOR

FC1	*1-564-354-21	PLUG, CONNECTOR (2.5MM) 3P
FC2	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P
FC3	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P
FC4	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P

TRANSISTOR

Q660	8-729-313-42	TRANSISTOR 2SD1134
Q661	8-729-204-83	TRANSISTOR 2SA1048GR
Q662	8-729-204-83	TRANSISTOR 2SA1048GR
Q670	8-729-313-42	TRANSISTOR 2SD1134
Q671	8-729-204-83	TRANSISTOR 2SA1048GR

Ref.No.	Part No.	Description	Remark
Q672	8-729-204-83	TRANSISTOR 2SA1048GR	
RESISTOR			
R660	1-212-361-00	METAL OXIDE 1.2 5% 1W F	
R661	1-247-831-00	CARBON 1K 5% 1/6W	
R662	1-247-855-00	CARBON 10K 5% 1/6W	
R664	1-249-421-11	CARBON 2.2K 5% 1/6W	
R665	1-247-819-00	CARBON 330 5% 1/6W	
R670	1-212-361-00	METAL OXIDE 1.2 5% 1W F	
R671	1-247-831-00	CARBON 1K 5% 1/6W	
R672	1-247-855-00	CARBON 10K 5% 1/6W	
R674	1-249-421-11	CARBON 2.2K 5% 1/6W	
R675	1-247-819-00	CARBON 330 5% 1/6W	

*1-614-503-11 FA BOARD

CAPACITOR

C600	1-130-712-00	FILM 0.47MF 20% 250V
*4-316-137-00	COVER, CAPACITOR; C660	

FUSE

F601	*1-532-237-11	FUSE, TIME-LAG T3.15A/250V
	1-533-087-00	HOLDER, FUSE; F601
F602	*1-532-350-11	FUSE, TIME-LAG T4A/250V
	1-533-087-00	HOLDER, FUSE; F602

CONNECTOR

FA1	*1-508-765-00	3P PLUG (M)
FA2	*1-508-786-00	2P PLUG (M)
FA3	*1-508-786-00	2P PLUG (M)
FA4	*1-508-765-00	3P PLUG (M)
FA5	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P
FA6	*1-564-442-11	PLUG, CONNECTOR (2.5MM) 6P
FA7	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P
FA8	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P
FA9	*1-564-354-21	PLUG, CONNECTOR (2.5MM) 3P
FA10	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P
FA11	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P
FA12	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P

RESISTOR

R600	1-202-724-00	SOLID 2.7M 10% 1/2W
R601	1-247-824-00	CARBON 510 5% 1/6W
R602	1-247-831-00	CARBON 1K 5% 1/6W
R603	1-247-837-00	CARBON 1.8K 5% 1/6W
R604	1-247-289-00	CARBON 8.2M 5% 1W

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FB

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
*A-1245-263-A	FB BOARD, COMPLETE	*****		D624	8-719-911-19	DIODE 1SS119	
*2-430-232-00	INSULATOR (SR12E), TRANSISTOR			D625	8-719-924-06	DIODE ERC24-06S	
*4-374-844-01	HEAT SINK (SRT)			D626	8-719-103-21	DIODE RD20E-N2	
*4-374-845-01	BAND (SRT)			<u>CONNECTOR</u>			
*4-374-846-01	COVER, CAPACITOR, CAP TYPE			FB1	*1-508-765-00	3P PLUG (M)	
*4-374-846-11	COVER, CAPACITOR, CAP TYPE			FB2	*1-564-454-11	PLUG, CONNECTOR (2.5MM) 6P	
<u>CAPACITOR</u>				<u>IC</u>			
C606	△.1-130-808-61	FILM	0.22MF 10% 400V	IC611	8-759-937-59	IC MB3759	
C607	△.1-161-953-51	CERAMIC	0.0047MF 20% 400V	IC612	8-759-729-03	IC NJM2903D	
C608	△.1-161-742-51	CERAMIC	0.0022MF 20% 400V	<u>COIL</u>			
C609	△.1-161-742-51	CERAMIC	0.0022MF 20% 400V	L611	1-408-412-00	MICRO INDUCTOR 18UH	
C610	△.1-161-742-51	CERAMIC	0.0022MF 20% 400V	L612	1-407-365-00	COIL, CHOKE	
C611	△.1-161-742-51	CERAMIC	0.0022MF 20% 400V	<u>TRANSISTOR</u>			
C612	△.1-161-742-51	CERAMIC	0.0022MF 20% 400V	Q610	8-729-802-07	TRANSISTOR 2SD1403-CA	
C613	△.1-161-742-51	CERAMIC	0.0022MF 20% 400V	Q611	8-729-177-43	TRANSISTOR 2SD774	
C614	△.1-161-742-00	CERAMIC	0.0022MF 20% 400V	Q612	8-729-177-43	TRANSISTOR 2SD774	
C615	△.1-161-742-51	CERAMIC	0.0022MF 20% 400V	Q613	8-729-245-83	TRANSISTOR 2SC2458	
C616	1-123-581-00	ELECT	100MF 20% 400V	Q614	8-729-245-83	TRANSISTOR 2SC2458	
C617	1-136-173-00	FILM	0.47MF 5% 50V	<u>RESISTOR</u>			
C618	1-123-356-00	ELECT	10MF 20% 25V	R611	1-206-676-00	METAL OXIDE 3.3K 5% 2W	F
C619	1-108-587-00	MYLAR	0.022MF 10% 50V	R612	1-247-155-00	CARBON 10K 5% 1/4W	
C620	1-161-328-00	CERAMIC	0.0047MF 30% 50V	R613	1-244-929-00	CARBON 220K 5% 1/2W	
C621	1-123-356-00	ELECT	10MF 20% 16V	R614	1-247-807-00	CARBON 100 5% 1/6W	
C622	1-124-440-11	ELECT	3300MF 20% 25V	R615	1-247-827-00	CARBON 680 5% 1/6W	
C623	1-108-833-00	MYLAR	0.0047MF 10% 50V	R616	1-247-034-00	CARBON 220 5% 1/8W	F
C624	1-123-356-00	ELECT	10MF 20% 25V	R617	1-247-847-00	CARBON 4.7K 5% 1/6W	
C625	1-106-180-00	MYLAR	0.0022MF 10% 50V	R618	1-247-847-00	CARBON 4.7K 5% 1/6W	
C626	1-102-074-00	CERAMIC	0.001MF 10% 50V	R619	1-247-865-00	CARBON 27K 5% 1/6W	
C627	1-123-356-00	ELECT	10MF 20% 16V	R620	1-247-853-00	CARBON 8.2K 5% 1/6W	
C628	1-123-356-00	ELECT	10MF 20% 25V	R621	1-247-847-00	CARBON 4.7K 5% 1/6W	
C629	1-123-381-00	ELECT	2.2MF 20% 50V	R622	1-249-421-11	CARBON 2.2K 5% 1/6W	
C630	1-123-330-00	ELECT	22MF 20% 16V	R623	1-247-879-00	CARBON 100K 5% 1/6W	
C631	1-123-335-00	ELECT	330MF 20% 25V	R624	1-249-421-11	CARBON 2.2K 5% 1/6W	
C632	1-130-806-00	FILM	0.1MF 10% 400V	R625	1-213-135-00	METAL OXIDE 220 5% 1W	F
C633	1-102-074-00	CERAMIC	0.001MF 10% 50V	R627	1-215-443-00	METAL 8.2K 1% 1/6W	
<u>DIODE</u>				R628	1-215-451-00	METAL 18K 1% 1/6W	
D610	8-719-300-63	DIODE LB-156		R629	1-215-447-00	METAL 12K 1% 1/6W	
D611	8-719-924-06	DIODE ERC24-06S		R630	1-247-849-00	CARBON 5.6K 5% 1/6W	
D612	8-719-102-74	DIODE RD6.2E-N2		R631	1-247-849-00	CARBON 5.6K 5% 1/6W	
D613	8-719-901-93	DIODE V19E		R632	1-215-429-00	METAL 2.2K 1% 1/6W	
D614	8-719-911-19	DIODE 1SS119		R633	1-215-401-11	METAL 150 1% 1/6W	
D615	8-719-908-20	DIODE ERC88-009		R634	1-215-429-00	METAL 2.2K 1% 1/6W	
D616	8-719-102-90	DIODE RD10E-N2		R635	1-247-855-00	CARBON 10K 5% 1/6W	
D617	8-719-102-74	DIODE RD6.2E-N2		R636	1-247-855-00	CARBON 10K 5% 1/6W	
D618	8-719-911-19	DIODE 1SS119		R637	1-247-879-00	CARBON 100K 5% 1/6W	
D619	8-729-101-31	TRANSISTOR N13T1		R638	1-247-847-00	CARBON 4.7K 5% 1/6W	
D620	8-719-911-19	DIODE 1SS119		R639	1-247-843-00	CARBON 3.3K 5% 1/6W	
D621	8-719-911-19	DIODE 1SS119		R640	1-247-855-00	CARBON 10K 5% 1/6W	
D622	8-719-911-19	DIODE 1SS119					
D623	8-719-911-19	DIODE 1SS119					

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FB

Q

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R641	1-249-421-11	CARBON 2.2K 5% 1/6W		C219	1-123-356-00	ELECT 10MF 20% 25V	
R642	1-247-867-00	CARBON 33K 5% 1/6W		C220	1-123-356-00	ELECT 10MF 20% 25V	
R643	1-247-847-00	CARBON 4.7K 5% 1/6W		C221	1-101-006-21	CERAMIC 0.047MF 50V	
R644	1-247-847-00	CARBON 4.7K 5% 1/6W		C222	1-123-321-00	ELECT 220MF 20% 16V	
R645	1-247-034-00	CARBON 220 5% 1/8W	F	C223	1-123-321-00	ELECT 220MF 20% 16V	
R646	1-247-825-00	CARBON 560 5% 1/6W		C224	1-123-333-00	ELECT 100MF 20% 16V	
R647	1-205-636-11	CEMENTED 3.3 5% 5W	F	C225	1-123-318-00	ELECT 33MF 20% 16V	
R648	1-213-160-00	METAL OXIDE 27K 5% 1W	F	C226	1-123-318-00	ELECT 33MF 20% 16V	
R649	1-213-160-00	METAL OXIDE 27K 5% 1W	F	C228	1-102-129-21	CERAMIC 0.01MF 10% 50V	
R650	1-247-847-00	CARBON 4.7K 5% 1/6W		C229	1-123-380-00	ELECT 1MF 20% 50V	
R651	1-247-831-00	CARBON 1K 5% 1/6W		C230	1-102-824-00	CERAMIC 470PF 5% 50V	
<u>VARIABLE RESISTOR</u>				C231	1-101-004-00	CERAMIC 0.01MF 50V	
RV610	1-230-231-11	RES, ADJ, CERAMIC CARBON 2.2K		C232	1-123-330-00	ELECT 22MF 20% 25V	
RV611	1-230-230-00	RES, ADJ, CERAMIC CARBON 1K		C240	1-102-822-00	CERAMIC 390PF 5% 50V	
<u>RELAY</u>				<u>DIODE</u>			
RY610	1-515-559-11	RELAY, POWER		D201	8-719-100-65	DIODE RD12E-B2	
<u>TRANSFORMER</u>				D202	8-719-911-19	DIODE 1SS119	
T609	1-421-760-11	LFT		D203	8-719-100-65	DIODE RD12E-B2	
T610	1-421-760-11	LFT		D204	8-719-911-19	DIODE 1SS119	
T611	1-448-146-11	TRANSFORMER, CONVERTER (S.R.T)		D205	8-719-911-19	DIODE 1SS119	
T612	1-437-173-11	TRANSFORMER, DRIVE		<u>IC</u>			
<u>VARISTOR</u>				IC201	8-752-006-10	IC CX20061	
VDR610	1-807-181-11	VARISTOR SNR-14A420K		IC202	8-759-400-01	IC AN5250	
*****				<u>CONNECTOR</u>			
*A-1270-160-A Q BOARD, COMPLETE				Q1	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P	
*****				Q2	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P	
4-308-030-00 WASHER				Q3	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P	
<u>CAPACITOR</u>				Q4	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P	
C201	1-123-333-00	ELECT 100MF 20% 25V		Q5	1-562-212-00	CONNECTOR, DIN 6P	
C202	1-101-006-21	CERAMIC 0.047MF 50V		Q6	1-536-899-11	TERMINAL BOARD, INPUT/OUTPUT	
C203	1-123-356-00	ELECT 10MF 20% 25V		<u>TRANSISTOR</u>			
C204	1-123-318-00	ELECT 33MF 20% 16V		Q201	8-729-245-83	TRANSISTOR 2SC2458	
C205	1-123-318-00	ELECT 33MF 20% 16V		Q202	8-729-245-83	TRANSISTOR 2SC2458	
C206	1-123-333-00	ELECT 100MF 20% 25V		Q203	8-729-245-83	TRANSISTOR 2SC2458	
C208	1-123-356-00	ELECT 10MF 20% 25V		Q204	8-729-204-83	TRANSISTOR 2SA1048GR	
C209	1-123-318-00	ELECT 33MF 20% 16V		Q205	8-729-204-83	TRANSISTOR 2SA1048GR	
C210	1-123-356-00	ELECT 10MF 20% 25V		Q206	8-729-177-43	TRANSISTOR 2SD774	
C211	1-101-006-21	CERAMIC 0.047MF 50V		Q207	8-729-245-83	TRANSISTOR 2SC2458	
C212	1-101-006-21	CERAMIC 0.047MF 50V		Q208	8-729-245-83	TRANSISTOR 2SC2458	
C213	1-123-380-00	ELECT 1MF 20% 50V		<u>RESISTOR</u>			
C214	1-123-380-00	ELECT 1MF 20% 50V		R201	1-215-394-00	METAL 75 1% 1/6W	
C215	1-123-334-00	ELECT 220MF 20% 25V		R202	1-247-131-00	CARBON 1K 5% 1/4W	
C217	1-101-006-21	CERAMIC 0.047MF 50V		R203	1-247-875-00	CARBON 68K 5% 1/6W	
C218	1-123-382-00	ELECT 3.3MF 20% 50V		R204	1-247-873-00	CARBON 56K 5% 1/6W	
				R205	1-247-831-00	CARBON 1K 5% 1/6W	
				R206	1-247-807-00	CARBON 100 5% 1/6W	
				R207	1-247-875-00	CARBON 68K 5% 1/6W	
				R208	1-215-394-00	METAL 75 1% 1/6W	

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7. ELECTRICAL PARTS LIST

Remark	Ref.No.	Part No.	Description			Remark
	C704	1-123-933-00	ELECT	10MF	20%	160V
			<u>COIL</u>			
	L701	1-407-704-00	MICRO INDUCTOR	82UH		
	L702	1-407-709-00	MICRO INDUCTOR	220UH		
			<u>NEON LAMP</u>			
	NE702	1-519-013-13	DISCHARGE TUBE			
	NE703	1-519-013-13	DISCHARGE TUBE			
	NE704	1-519-013-13	DISCHARGE TUBE			
	NL701	1-519-108-XX	LAMP, NEON ASSY			
			<u>TRANSISTOR</u>			
	Q701	8-729-326-11	TRANSISTOR	2SC2611		
	Q702	8-729-326-11	TRANSISTOR	2SC2611		
	Q703	8-729-326-11	TRANSISTOR	2SC2611		
			<u>RESISTOR</u>			
	R701	1-202-842-11	SOLID	220K	10%	1/2W
	R702	1-202-719-00	SOLID	1M	10%	1/2W
	R703	1-202-838-00	SOLID	100K	10%	1/2W
	R706	1-213-156-00	METAL OXIDE	12K	5%	1W
	R707	1-247-815-00	CARBON	220	5%	1/6W
	R709	1-202-822-00	SOLID	2.2K	10%	1/2W
	R710	1-213-156-00	METAL OXIDE	12K	5%	1W
	R711	1-202-822-00	SOLID	2.2K	10%	1/2W
	R712	1-247-815-00	CARBON	220	5%	1/6W
	R714	1-213-156-00	METAL OXIDE	12K	5%	1W
	R715	1-202-822-00	SOLID	2.2K	10%	1/2W
	R716	1-247-815-00	CARBON	220	5%	1/6W
			<u>VARIABLE RESISTOR</u>			

S1 1-553-725-00 SWITCH, SLIDE
S2 1-553-725-00 SWITCH, SLIDE

*1-614-498-11 DC BOARD

CAPACITOR

CAPACITOR

C890	1-123-332-00	ELECT	47MF	20%	16V
C891	1-130-794-00	FILM	0.22MF	10%	250V
C892	1-130-800-00	FILM	2.2MF	10%	250V

DIODE

D890	8-719-102-74	DIODE RD6.2E-N2
D891	8-719-000-28	THYRISTOR CRO2AM-8
D892	8-719-911-55	DIODE U05G

DC

DD

DB

DA

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
<u>CONNECTOR</u>							
DC1	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P		C807	1-123-356-00	ELECT 10MF 20% 16V	
DC2	*1-560-278-00	PLUG, CONNECTOR 3P		C808	1-123-382-00	ELECT 3.3MF 20% 50V	
<u>TRANSISTOR</u>				C809	1-123-380-00	ELECT 1MF 20% 50V	
Q890	8-765-620-00	TRANSISTOR 2SD1015		C810	1-161-059-00	CERAMIC 0.047MF 10% 50V	
<u>RESISTOR</u>				C811	1-102-121-00	CERAMIC 0.0022MF 10% 50V	
R895	1-202-846-00	SOLID 470K 1/2W		C812	1-123-380-00	ELECT 1MF 20% 50V	
R896	1-247-871-00	CARBON 47K 5% 1/6W		C813	1-123-356-00	ELECT 10MF 20% 16V	
R898	1-247-817-00	CARBON 270 5% 1/6W		C814	1-124-539-51	ELECT 330MF 20% 35V	
R899	1-247-839-00	CARBON 2.2K 5% 1/8W F		C815	1-129-706-51	FILM 0.0022MF 10% 630V	
R900	1-246-517-25	CARBON 68K 5% 1/4W		C816	1-130-581-11	FILM 0.033MF 3% 600V	
*****				C817	1-129-706-51	FILM 0.0022MF 10% 630V	
	*1-615-160-11	DD BOARD		C820	1-123-335-00	ELECT 330MF 20% 25V	
		*****		C822	1-102-030-00	CERAMIC 330PF 10% 500V	
	*1-564-451-11	PLUG, CONNECTOR (2.5MM) 3P		C823	1-123-347-00	ELECT 330MF 20% 35V	
<u>CAPACITOR</u>				C824	1-102-030-51	CERAMIC 330PF 10% 500V	
C870	1-161-328-00	CERAMIC 0.0047MF 30% 50V		C825	1-123-933-00	ELECT 10MF 20% 160V	
<u>IC</u>				C826	1-123-356-00	ELECT 10MF 20% 25V	
IC805	8-759-170-12	IC UPC78M12H		C828	1-130-781-00	FILM 0.22MF 10% 100V	
*****				C830	1-123-356-00	ELECT 10MF 20% 16V	
	*1-614-502-11	DB BOARD		C831	1-108-591-00	MYLAR 0.033MF 10% 50V	
		*****		C832	1-108-591-00	MYLAR 0.033MF 10% 50V	
<u>CONNECTOR</u>				C833	1-123-380-00	ELECT 1MF 20% 50V	
DB1	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P		C834	1-136-173-00	FILM 0.47MF 5% 50V	
DB2	*1-564-445-11	PLUG, CONNECTOR (2.5MM) 9P		C835	1-123-322-00	ELECT 330MF 20% 16V	
<u>TRANSFORMER</u>				C836	1-124-245-00	ELECT 4.7MF 20% 25V	
T801	1-439-358-11	TRANSFORMER ASSY, FLYBACK		C837	1-123-379-00	ELECT 0.47MF 20% 50V	
*****				C838	1-108-837-00	MYLAR 0.01MF 10% 50V	
	*A-1345-522-A	DA BOARD, COMPLETE		C839	1-108-845-00	MYLAR 0.047MF 10% 50V	
		*****		C840	1-102-832-00	CERAMIC 330PF 10% 50V	
	3-701-833-01	HEAD, WASHER, TAPPING SCREW		C841	1-123-360-00	ELECT 100MF 20% 50V	
<u>CAPACITOR</u>				C842	1-123-335-00	ELECT 330MF 20% 25V	
C800	1-123-380-00	ELECT 1MF 20% 50V		C843	1-108-837-00	MYLAR 0.01MF 10% 50V	
C801	1-108-599-00	MYLAR 0.068MF 10% 50V		C844	1-102-030-51	CERAMIC 330PF 10% 500V	
C802	1-108-837-00	MYLAR 0.01MF 10% 50V		C845	1-136-337-11	FILM 3.3MF 10% 100V	
C803	1-108-837-00	MYLAR 0.01MF 10% 50V		C846	1-124-245-00	ELECT 4.7MF 20% 25V	
C804	1-123-369-00	ELECT 4.7MF 20% 25V		C850	1-123-356-00	ELECT 10MF 20% 25V	
C805	1-123-369-00	ELECT 4.7MF 20% 25V		C851	1-106-176-00	MYLAR 0.0015MF 5% 50V	
C806	1-130-868-00	FILM 0.0056MF 5% 50V		C853	1-106-180-00	MYLAR 0.0022MF 5% 50V	
				C854	1-102-529-00	CERAMIC 100PF 5% 50V	
				C855	1-123-356-00	ELECT 10MF 20% 16V	
				C856	1-102-973-00	CERAMIC 100PF 10% 50V	
				C857	1-102-038-51	CERAMIC 0.001MF 500V	
				C860	1-123-381-00	ELECT 2.2MF 20% 50V	
				C862	1-102-074-00	CERAMIC 0.001MF 10% 50V	
				C863	1-123-380-00	ELECT 1MF 20% 50V	
				C864	1-124-537-51	ELECT 1200MF 20% 35V	
				C866	1-102-074-00	CERAMIC 0.001MF 10% 50V	
				C867	1-101-002-00	CERAMIC 0.0022MF 50V	
				<u>DIODE</u>			
				D800	8-719-102-74	DIODE RD6.2E-N2	
				D801	8-719-911-19	DIODE 1SS119	
				D803	8-719-300-76	DIODE RH1A	

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DA

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
D804	8-719-300-76	DIODE RH1A		TRANSISTOR			
D805	8-719-901-95	DIODE V19CSS		Q800	8-729-245-83	TRANSISTOR 2SC2458	
D806	8-719-901-93	DIODE V19E		Q801	8-729-201-62	TRANSISTOR 2SC2555	
D807	8-719-901-93	DIODE V19E			*4-363-404-00	HOLDER, IC; Q801	
D808	8-719-901-93	DIODE V19E			4-363-414-00	SPACER, MICA; Q801	
				Q802	8-729-201-XX	TRANSISTOR 2SC3075	
D809	8-719-911-55	DIODE U05G		Q803	8-729-245-83	TRANSISTOR 2SC2458	
D810	8-719-911-19	DIODE 1SS119		Q804	8-729-245-83	TRANSISTOR 2SC2458	
D811	8-719-911-19	DIODE 1SS119		Q805	8-729-245-83	TRANSISTOR 2SC2458	
D812	8-719-911-19	DIODE 1SS119		Q806	8-729-245-83	TRANSISTOR 2SC2458	
D813	8-719-911-19	DIODE 1SS119		Q807	8-729-204-83	TRANSISTOR 2SA1048GR	
D814	8-719-911-19	DIODE 1SS119		Q808	8-729-245-83	TRANSISTOR 2SC2458	
D815	8-719-911-19	DIODE 1SS119		Q809	8-729-133-43	TRANSISTOR 2SC2334-K	
D816	8-719-901-83	DIODE 1SS83		RESISTOR			
D817	8-719-911-19	DIODE 1SS119		R800	1-247-855-00	CARBON 10K 5% 1/6W	
D818	8-719-911-19	DIODE 1SS119		R801	1-247-850-00	CARBON 6.2K 5% 1/6W	
D819	8-719-911-19	DIODE 1SS119		R802	1-247-855-00	CARBON 10K 5% 1/6W	
D820	8-719-911-19	DIODE 1SS119		R803	1-247-877-00	CARBON 82K 5% 1/6W	
D821	8-719-102-74	DIODE RD6.2E-N2		R804	1-247-857-00	CARBON 12K 5% 1/6W	
D822	8-719-103-21	DIODE RD20E-N2		R805	1-247-831-00	CARBON 1K 5% 1/6W	
D823	8-719-911-19	DIODE 1SS119		R807	1-247-851-00	CARBON 6.8K 5% 1/6W	
D824	8-719-102-61	DIODE RD4.3E-N1		R808	1-247-851-00	CARBON 6.8K 5% 1/6W	
D825	8-719-000-28	THYRISTOR CRO2AM-8		R809	1-247-827-00	CARBON 680 5% 1/6W	
D826	8-719-981-00	DIODE ERC81-004		R810	1-247-827-00	CARBON 680 5% 1/6W	
D827	8-719-981-00	DIODE ERC81-004		R811	1-247-827-00	CARBON 680 5% 1/6W	
CONNECTOR				R812	1-206-648-00	METAL OXIDE 220 5% 2W F	
DA1	*1-564-440-11	PLUG, CONNECTOR (2.5MM) 4P		R813	1-212-360-00	METAL OXIDE 1 5% 1W F	
DA2	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P		R815	1-247-851-00	CARBON 6.8K 5% 1/6W	
DA3	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P		R816	1-247-855-00	CARBON 10K 5% 1/6W	
DA4	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P		R818	1-247-855-00	CARBON 10K 5% 1/6W	
DA5	*1-508-765-00	3P PLUG (M)		R819	1-215-461-00	METAL 47K 1% 1/6W	
DA6	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P		R820	1-215-449-00	METAL 15K 1% 1/6W	
DA7	*1-564-445-11	PLUG, CONNECTOR (2.5MM) 9P		R821	1-247-879-00	CARBON 100K 5% 1/6W	
DA8	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P		R822	1-213-143-00	METAL OXIDE 1K 5% 1W F	
FUSE				R824	1-217-383-00	FUSIBLE 4.7 5% 1/4W F	
F801	1-532-203-00	FUSE, TIME-LAG T2A		R825	1-210-859-00	CARBON 1.2 5% 1/8W F	
	1-533-087-00	HOLDER, FUSE		R826	1-215-445-00	METAL 10K 1% 1/6W	
IC				R827	1-213-149-00	METAL OXIDE 3.3K 5% 1W F	
IC800	8-759-100-60	IC UPC1377C		R828	1-213-149-00	METAL OXIDE 3.3K 5% 1W F	
IC801	8-759-113-78	IC UPC1378H-L		R829	1-213-149-00	METAL OXIDE 3.3K 5% 1W F	
IC802	8-759-145-58	IC UPC4558C		R830	1-247-855-00	CARBON 10K 5% 1/6W	
IC803	8-759-240-30	IC TC4030BP		R831	1-247-855-00	CARBON 10K 5% 1/6W	
IC804	8-759-345-38	IC HD14538BP		R832	1-247-851-00	CARBON 6.8K 5% 1/6W	
				R833	1-247-863-00	CARBON 22K 5% 1/6W	
COIL				R834	1-247-859-00	CARBON 15K 5% 1/6W	
L800	1-408-242-00	MICRO INDUCTOR 10MMH		R835	1-247-855-00	CARBON 10K 5% 1/6W	
L802	1-408-403-00	MICRO INDUCTOR 3.3UH		R836	1-247-871-00	CARBON 47K 5% 1/6W	
L803	1-459-370-11	COIL, FERRITE (HLC)		R837	1-247-831-00	CARBON 1K 5% 1/6W	
L804	1-459-597-11	COIL, VARIABLE		R838	1-247-824-00	CARBON 510 5% 1/6W	
L805	1-459-403-00	COIL (WITH CORE)		R839	1-247-852-00	CARBON 7.5K 5% 1/6W	
				R840	1-247-863-00	CARBON 22K 5% 1/6W	
L806	1-408-423-00	MICRO INDUCTOR 150UH					
L807	1-459-595-11	COIL, CHOKE					
L810	1-407-365-00	COIL, CHOKE					

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DA | HA

Ref.No.	Part No.	Description				Remark	Ref.No.	Part No.	Description				Remark
R842	1-247-855-00	CARBON	10K	5%	1/6W		RV807	1-226-702-00	RES, ADJ, METAL GLAZE 2.2K				
R843	1-247-865-00	CARBON	27K	5%	1/6W		RV808	1-226-703-00	RES, ADJ, METAL GLAZE 10K				
R844	1-247-817-00	CARBON	270	5%	1/6W				RELAY				
R845	1-212-368-00	METAL OXIDE	4.7	5%	1W	F							
R846	1-213-138-00	METAL OXIDE	390	5%	1W	F							
							RY800	1-515-380-00	RELAY				
R847	1-213-138-00	METAL OXIDE	390	5%	1W	F			TRANSFORMER				
R848	1-213-139-00	METAL OXIDE	470	5%	1W	F							
R849	1-247-848-00	CARBON	5.1K	5%	1/6W		T800	A.1-437-082-11	HDT				
R850	1-247-855-00	CARBON	10K	5%	1/6W		T802	A.1-437-081-11	TRANSFORMER, CDT				
R851	1-247-855-00	CARBON	10K	5%	1/6W								
R852	1-247-819-00	CARBON	330	5%	1/8W	F							
R853	1-247-831-00	CARBON	1K	5%	1/6W								
R855	1-215-434-00	METAL	3.6K	1%	1/6W								
R856	A.1-215-455-31	METAL	27K	1%	1/6W								
R860	1-247-847-00	CARBON	4.7K	5%	1/6W								
R861	1-247-847-00	CARBON	4.7K	5%	1/6W								
R862	1-247-867-00	CARBON	33K	5%	1/6W								
R863	1-247-831-00	CARBON	1K	5%	1/6W		C504	1-123-332-00	ELECT	47MF	20%	25V	
R864	1-247-879-00	CARBON	100K	5%	1/6W		C505	1-101-004-00	CERAMIC	0.01MF		50V	
R866	1-247-855-00	CARBON	10K	5%	1/6W								
R867	1-215-433-00	METAL	3.3K	1%	1/6W								
R868	1-247-871-00	CARBON	47K	5%	1/6W								
R869	1-247-871-00	CARBON	47K	5%	1/6W								
R870	1-215-469-00	METAL	100K	1%	1/6W								
R871	1-247-895-00	CARBON	470K	5%	1/6W								
R872	1-247-889-00	CARBON	270K	5%	1/6W								
R873	1-247-831-00	CARBON	1K	5%	1/6W								
R874	1-247-847-00	CARBON	4.7K	5%	1/6W								
R876	1-215-427-00	METAL	1.8K	1%	1/6W								
R877	1-247-847-00	CARBON	4.7K	5%	1/6W								
R879	1-247-803-00	CARBON	68	5%	1/6W								
R880	1-215-452-00	METAL	20K	1%	1/6W								
R881	A.1-215-459-31	METAL	39K	1%	1/6W								
R882	1-215-441-00	METAL	6.8K	1%	1/6W								
R883	1-247-863-00	CARBON	22K	5%	1/6W								
R884	1-247-860-00	CARBON	16K	5%	1/6W								
R885	1-247-852-00	CARBON	7.5K	5%	1/6W								
R886	1-247-852-00	CARBON	7.5K	5%	1/6W								
R888	1-247-847-00	CARBON	4.7K	5%	1/6W								
R890	1-247-831-00	CARBON	1K	5%	1/6W								
R891	1-247-851-00	CARBON	6.8K	5%	1/6W								
R892	1-249-421-11	CARBON	2.2K	5%	1/6W								
R893	1-247-837-00	CARBON	1.8K	5%	1/8W	F							
R894	1-247-807-00	CARBON	100	5%	1/6W								
		VARIABLE RESISTOR											
RV800	1-230-522-11	RES, ADJ, METAL GLAZE 4.7K											
RV801	1-230-522-11	RES, ADJ, METAL GLAZE 4.7K											
RV802	1-228-720-00	RES, ADJ, CERAMIC CARBON 1K											
RV803	1-228-717-00	RES, ADJ, CERAMIC CARBON 220											
RV804	1-224-249-XX	RES, ADJ, METAL GLAZE 1K											
RV805	1-223-102-00	RES, ADJ, WIREWOUND 120											
RV806	1-228-727-00	RES, ADJ, CERAMIC CARBON 47K											
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The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

I componenti contrassegnati con sfumatura e con il segno  sono altamente pericolosi. Sostituirli solo con parti con numero specificato.

HA

HB

X

Ref.No.	Part No.	Description	Remark
R529	1-247-855-00	CARBON 10K 5% 1/6W	
R531	1-247-835-00	CARBON 1.5K 5% 1/6W	

VARIABLE RESISTOR

RV511	1-230-760-11	RES, VAR, CARBON 1K
RV512	1-230-762-11	RES, VAR, CARBON 20K
RV513	1-230-711-11	RES, VAR, CARBON 20K
RV514	1-230-711-11	RES, VAR, CARBON 20K
RV515	1-230-710-11	RES, VAR, CARBON 10K
RV516	1-230-710-11	RES, VAR, CARBON 10K
RV517	1-226-703-00	RES, ADJ, METAL GLAZE 10K
RV518	1-230-522-11	RES, ADJ, METAL GLAZE 4.7K
RV519	1-226-774-00	RES, ADJ, METAL GLAZE 47K

THERMISTOR

TH502	1-800-944-00	THERMISTOR TH-4700
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*1-614-942-11	HB BOARD

*4-337-424-00	HOLDER (L), LED
*4-374-809-01	HOLDER (3 GANG), LED

DIODE

D503	8-719-812-31	DIODE TLR123
D504	8-719-812-32	DIODE TLY123
D505	8-719-812-32	DIODE TLY123
D506	8-719-812-32	DIODE TLY123
D507	8-719-812-32	DIODE TLY123

CONNECTOR

HB2	*1-564-450-11	PLUG, CONNECTOR (2.5MM) 2P
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SWITCH

S505	1-554-118-00	SWITCH, PUSH (1 KEY)
S506	1-554-118-00	SWITCH, PUSH (1 KEY)
S507	1-554-118-00	SWITCH, PUSH (1 KEY)
S508	1-554-118-00	SWITCH, PUSH (1 KEY)
S509	1-554-118-00	SWITCH, PUSH (1 KEY)

*1-614-496-11	X BOARD

*4-337-424-00	HOLDER (L), LED
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DIODE

D680	8-719-812-33	DIODE TLG123A
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Ref.No.	Part No.	Description	Remark
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MISCELLANEOUS

△.1-451-265-11	DEFLECTION YOKE (SY-167)
1-452-032-00	MAGNET, DISK; 10MM Ø
1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø
1-452-126-11	MAGNET
1-507-465-00	JACK, POWER OUTSIDE

△.1-509-547-11	3P INLET
1-543-171-00	CORE, RING

L901 △.1-426-043-12	COIL, DEGAUSSING
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S901 △.1-570-201-11	SWITCH, PUSH (AC POWER)(1 KEY)
S902 △.1-516-046-11	SWITCH, SLIDE
SP901 1-502-509-00	SPEAKER

V901 △.8-737-151-05	CRT (M20JMP10X)
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ACCESSORIES AND PACKING MATERIALS

Part No.	Description	Remark
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△.1-551-258-11	CORD, POWER
3-548-372-00	BAG, POLYETHYLENE
3-701-630-00	BAG, POLYETHYLENE
4-374-831-01	HOOD (VF-501)
4-374-842-01	INDIVIDUAL CARTON

4-374-848-01	CUSHION (UPPER) (ASSY)
4-374-849-01	CUSHION (LOWER) (ASSY)
4-374-891-21	MANUAL, INSTRUCTION

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